CRUZE

HOLDEN

www.holden.com.au

Owner's Name .....
Address .....
Town .....
State.....Postcode .....

Model Name .....
Reg. No.....Eng. No. .....
Odometer Reading .....
Date of Purchase .....

(17 character ISOVIN) Vehicle Identification Number

Vehicle Identification Certificate

Selling Retailer's
Stamp and Signature .....

Holden Ltd. ABN 84 006 893 232 (hereinafter Holden).

Change of name, address or ownership

In the event of a Safety Recall, or for various reasons, Holden may need to contact you as the owner of this vehicle. Also, if less than three years old, this vehicle will qualify for Roadside Assistance. Refer to Chapter 9. If you have recently changed your name or address or purchased this vehicle second-hand, please help us to help you by taking a few minutes to fill in and mail the form on the third page of this handbook. For information about Holden's privacy policy, please visit Holden's website at *www.holden.com.au* .

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Part No. 92114881
May 2003 (Cruze, print 4)

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We thank you for choosing Holden and want to assure you of our continuing interest in your motoring pleasure and satisfaction and compliment you on your choice.

This handbook applies to all the current Cruze models. Therefore, due to different models and options, you may find reference in this Handbook to some equipment not installed in your vehicle.

Please note that all information, illustrations and specifications in this Handbook are based on the latest production information available at the time of printing. Holden reserves the right to make changes at any time without notice and without incurring any obligation.

CHANGE OF ADDRESS OR OWNERSHIP

Please fill in the form below if you have changed your name, address, bought the vehicle second-hand, or have become the new driver.

Holden requires these details in order to contact the operator in the event of a safety recall and to keep the initial 3 year Roadside Assistance details up to date (refer Chapter 9). For information about Holden's privacy policy, please visit Holden's website at *www.holden.com.au* .

Please mail to the address on the back of this page.

Please tick the appropriate box:

☐ Original Owner ☐ Subsequent Owner

Title: (Mr, Mrs, Miss, Ms, etc.)

First name in full or initials

Surname or Name of Company / Institution / Government Department

Address

Street / box

City / Town

State Postcode

1st contact phone no

2nd contact phone no

Email address

Vehicle registration number

Holden number (if fitted – refer to Chapter 8)

ISOVIN Number (Refer toChapter 8)

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
Holden Limited
Box 548D, G.P.O.
Melbourne
Victoria, 3001

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CHAPTER 1

Dashboard

The following page illustrates the dashboard, identifying and locating each function; page numbers refer you to each item.

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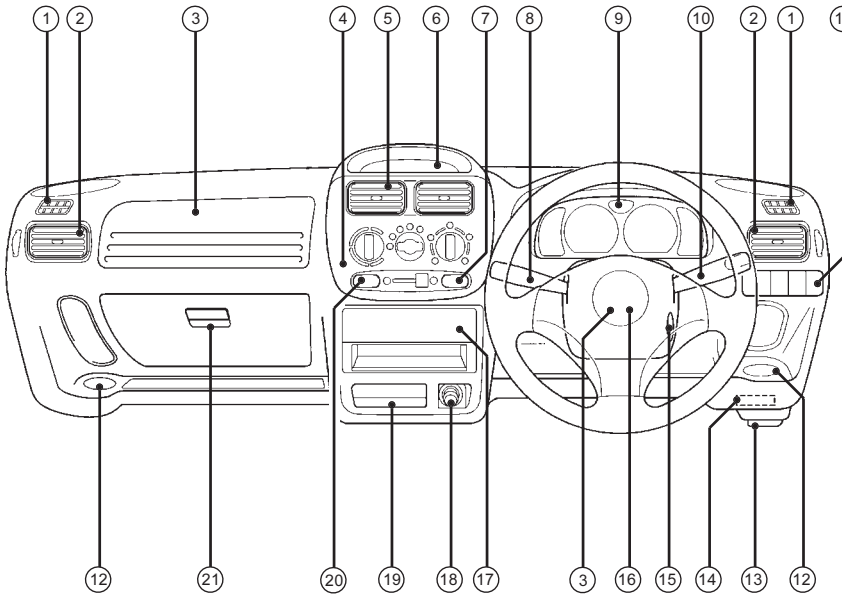
DASHBOARD LAYOUT



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Note: Refer to the audio leaflet for operating instructions about your radio / CD.

TILT STEERING, HORN AND GLOVEBOX

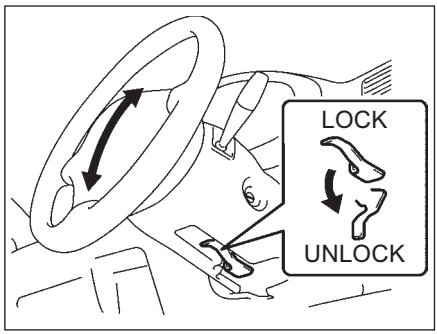
Tilt steering

The lock lever is located under the steering column. Push it downwards to adjust the steering wheel height.

Grasp the steering wheel and move it to the required position.

Move the lock lever back up as far as it will go to set the position.

Before driving, jiggle the steering wheel to ensure it has locked securely.



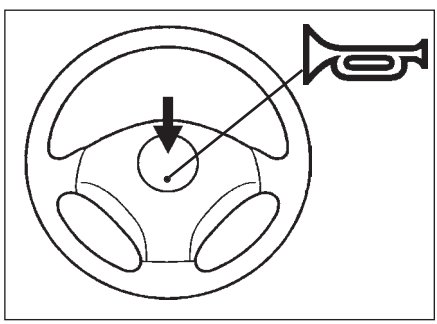
WARNING:

As with all driver position controls, do not attempt to adjust the steering wheel while driving.

Horn

The horn is activated by pressing the centre section of the steering wheel.

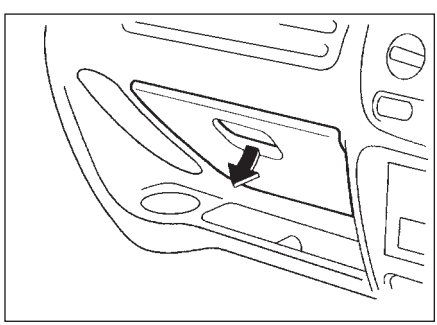
You can sound the horn with the ignition switch in any position.



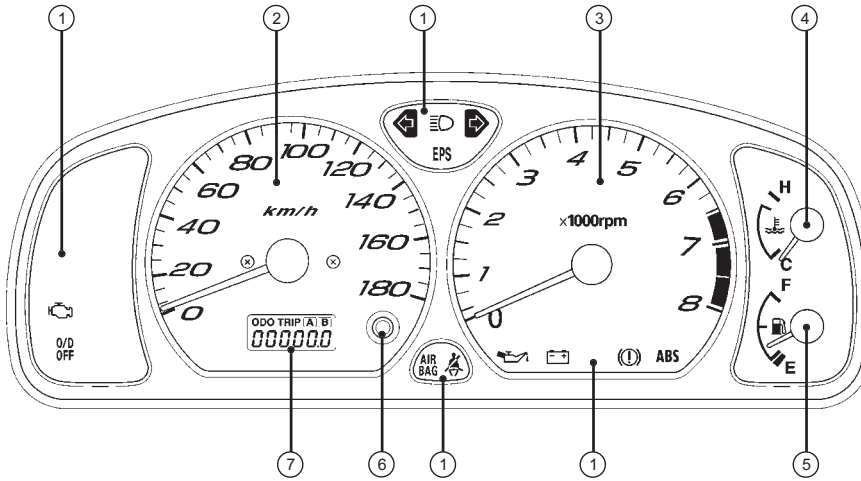
Glovebox

To open the glove box, pull the latch lever.

To close the glove box, push the lid until it latches securely.



GAUGES



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Speedometer

The speedometer indicates vehicle speed in kilometres per hour.

Odometer / tripmeter display window

A window in the speedometer is used to display the odometer, tripmeter A and tripmeter B.

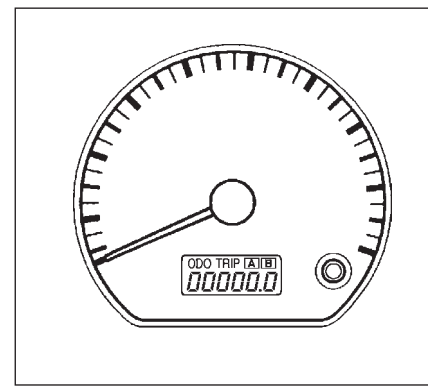
With the ignition switch in the ON position, either the odometer or a tripmeter displays.

Push the selector knob in quick succession to change the display mode.

The odometer records kilometres travelled since the vehicle was built.

The tripmeters record kilometres travelled on a particular trip and can be used independently.

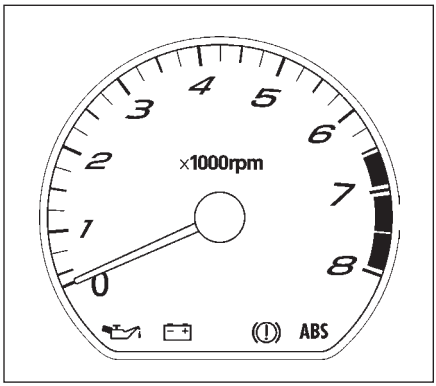
Push the selector knob for approximately 2 seconds to reset the tripmeter.



GAUGES cont.

Tachometer

The tachometer shows engine speed in revolutions per minute (rpm).



WARNING:

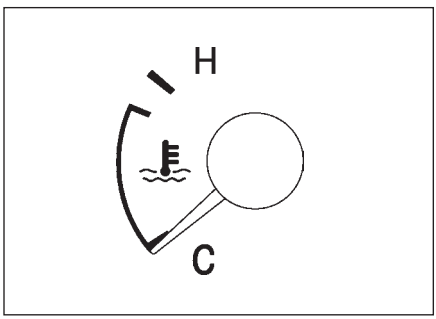
Do not drive with the engine speed (rpm) in the red zone. This can cause severe engine damage.

Engine temperature gauge

With the ignition switch in the ON position, this gauge indicates the engine coolant temperature.

The engine coolant level must be adequate for this gauge to function correctly. Refer to Chapter 7.

Under normal driving conditions, the needle should stay within the central zone on the gauge.



WARNING:

If the needle moves into the red zone, pull over as soon as it is safe to do so. Refer to Chapter 6.

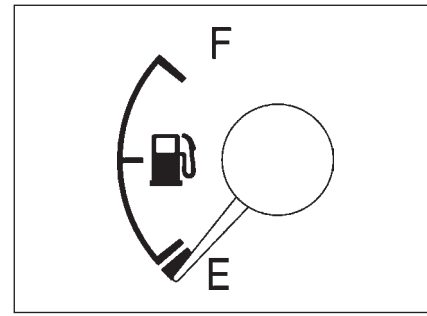
GAUGES cont.

Fuel gauge

With the ignition switch in the ON position, this gauge indicates the approximate amount of fuel in the fuel tank.

'F' indicates full and 'E' indicates empty. If the needle moves below the lowest graduation, refill the tank as soon as possible.

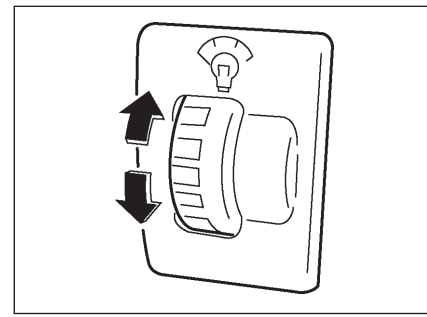
You should not let the tank become empty. Refer to Chapter 5.



Instrument light intensity control

The light intensity control is located in the switch group to the right of the steering wheel.

With the headlights switched on, adjust instrument brightness by turning the thumb wheel.

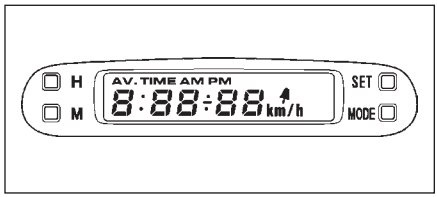


CLOCK / INFORMATION DISPLAY

The clock / information display works as a digital clock and an average speed indicator.

It displays up to four functions depending on the position of the ignition switch.

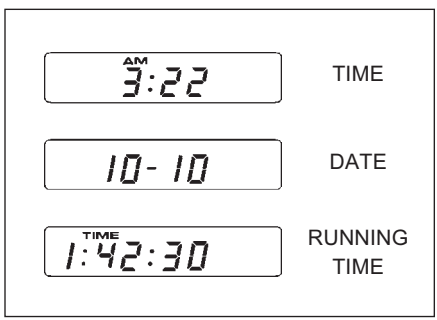
To switch between the functions, push the MODE button in quick succession.



ACC position

With the ignition switch in the ACC position, the display switches between three functions:

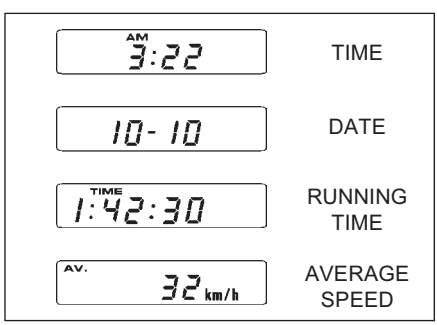
- time
- date
- running-time.



ON position

With the ignition switch in the ON position, the display switches between all four functions:

- time
- date
- running-time
- average speed.

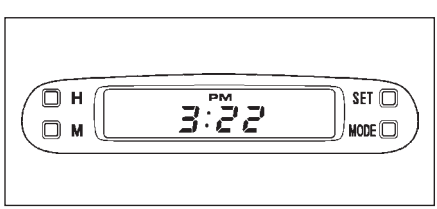


Time display

The time display has two functions:

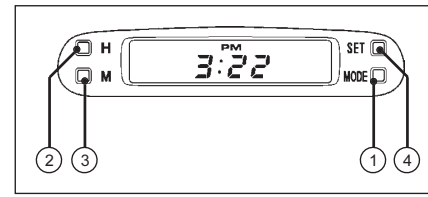
- time
- alarm.

The time and alarm can be set when the ignition key is in the ACC or ON position.



CLOCK / INFORMATION DISPLAY cont.

Set the time



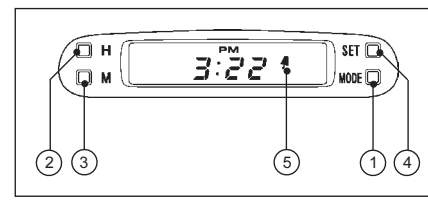
1 Push and hold the MODE button (1) until the display blinks (approximately 2 seconds).

2 Push the H (hour) button (2) to advance the hour to your desired setting.

3 Push the M (minute) button (3) to advance the minutes to your desired setting.

4 Push the SET button (4) twice.

Set the alarm clock



1 Push and hold the MODE button (1) until the display blinks (approximately two seconds).

2 Push the SET button (4) once.

3 Push the H (hour) button (2) to advance the hour to your desired setting.

4 Push the M (minute) button (3) to advance the minutes to your desired setting.

5 Push the SET button once again.

The alarm indicator (5) illuminates to confirm that the alarm is set.

When the alarm time arrives, the alarm sounds briefly. Cancel the sounding alarm by pushing the SET button once.

Note: The alarm setting remains programmed and active until it is cancelled.

Cancel the alarm clock

1 With the time displayed, push and hold the MODE button until the display blinks.

2 Push the SET button once.

3 Push and hold the MODE button until '-:--:--' displays.

4 Push the SET button once again.

CLOCK / INFORMATION DISPLAY cont.

Running-time display

Running-time is the time that the ignition switch has been in the ON position. This is regardless of whether the engine is running or not.

The running-time display has two functions:

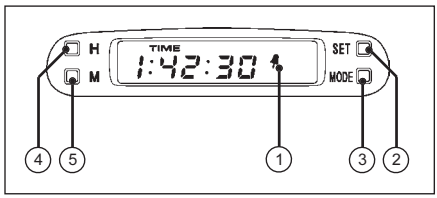
- to display the progressive running-time
- to enable a running-time alarm.

View the running time by pushing the MODE button (3) twice.

The running-time alarm can be set to sound after a specified length of running-time.

The alarm indicator (1) illuminates to confirm that the running-time alarm is set.

The alarm and running-time can be set and reset when the ignition key is in the ACC or ON position.



Reset the running-time

1 Push the SET button (2) for more than 1 second.

Set the running-time alarm

1 Push and hold the MODE button (3) until the display blinks (approximately 2 seconds).

2 Push the H (hour) button (4) to advance the hour to your desired setting.

3 Push the M (minute) button (5) to advance the day setting.

4 Push the SET button (2) again, once only. The display returns to show the running time.

Cancel the running-time alarm

1 With the running time displayed, push and hold the MODE button until the display blinks.

2 Push the SET button once.

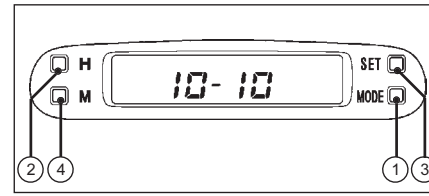
3 Push and hold the MODE button until '-:--:--' displays.

4 Push the SET button once again.

CLOCK / INFORMATION DISPLAY cont.

Date display

You can set the date when the ignition switch is in the ACC or ON position. The display shows only the day and month.



To set the date:

1 Push and hold the MODE button (1) until the display blinks.
2 Push the H (hour) button (2) to advance the year display.
3 Push the SET button (3) once.
4 Push the H button to advance the month.
5 Push the M (minute) button (4) to advance the day display.
6 Push the SET button once.

Average speed display

This displays the average vehicle speed during the time that the ignition switch has been in the ON position (not necessarily driving time).

You can push the mode button (1) to select the average speed display when the ignition switch is in the ON position.

Reset the average speed display

When the ignition switch is turned to the OFF position, the average speed is automatically reset.

To manually reset the display, push the SET button for more than 1 second.

WARNING / REMINDER LIGHTS

Check engine

The Check Engine light indicates when the emission control system requires servicing.

This light illuminates when you switch the ignition to the ON or START position and should go out shortly after the engine starts.

If the symbol lights up while you are driving, consult a Holden Retailer as soon as possible. Continued driving while this light is illuminated could result in poor fuel consumption, poor engine performance and / or damage to the emission control system.

O/D OFF

Overdrive off

This light illuminates briefly when you switch the ignition to the ON position and stays illuminated when you disengage overdrive. Overdrive is engaged when the vehicle is started.

WARNING:

This light will flash when the ignition switch is in the ON position and a fault in the automatic transmission system has been detected.

Turn signal indicators

These lights flash when you activate the respective turn signal lights. The ignition switch must be in the ON position to activate the turn signal lights.

A turn indicator flashing rapidly can indicate that a light bulb has failed.

High beam

This light illuminates when you switch the headlights on and to high beam or when you flash the high beam lights momentarily.

EPS

Electronic power steering

This light illuminates when:

- you turn the ignition switch to the ON position
- a fault occurs in the power steering system.

If this light illuminates while you are driving, consult a Holden Retailer.

Note: If the power steering system is faulty, the vehicle can still be driven. However, due to the greater effort required to steer, it is recommended that you consult a Holden retailer as soon as possible.

WARNING / REMINDER LIGHTS cont.

AIR BAG

Airbag and seat belt pretensioner system

When you turn the ignition switch to the ON position, this light flashes six times and then goes out.

WARNING:

If this light does not go out, or if it comes on during driving, a defect may have occurred in the airbag or seat belt pretensioner system preventing the system from functioning properly. Consult a Holden Retailer as soon as possible.

Seat belt

This light illuminates when you switch the ignition to the ON position, as a reminder for seat belts to be worn. It remains illuminated until the driver's seat belt is fastened.

Oil pressure

This light illuminates when:

- you switch the ignition to the ON position (and goes out after the engine starts)
- there is insufficient oil pressure (and remains on).

If the engine is hot, the light may illuminate intermittently when idling. However, it should go out when the engine speed is increased.

WARNING:

If this light illuminates during driving, immediately stop the vehicle, switch the engine off and check the engine oil level.

Do not drive with this light showing.
If the oil level is normal, have the system checked by a Holden Retailer.

Battery charge

This light illuminates when the ignition is switched to the ON position and goes out when the engine is started.

If this light illuminates during driving, the battery is not being charged. (Engine cooling can also be affected.) Consult a Holden Retailer as soon as possible.

WARNING:

If this light does not go out, or if it comes on during driving, a defect may have occurred in the charging system. Consult a Holden Retailer as soon as possible.

WARNING / REMINDER LIGHTS cont.

Brake system

This light illuminates when:

- you turn the ignition switch to the ON or START position
- you engage the parking brake
- the fluid in the brake fluid reservoir falls below a preset level.

The light should go out when you start the engine and fully release the parking brake. The disc brake system is self-adjusting causing the fluid level to drop as the brake pads wear.

Note: The brake reservoir fluid level must be adequate for this light to function correctly. Refer to Chapter 7.

WARNING:

Consult a Holden Retailer if the warning light:

- **does not illuminate when you turn the ignition switch to the ON or START position**
- **does not go out after the engine starts and the park brake is disengaged**
- **illuminates at any time during vehicle operation.**

If this light illuminates when you are driving and the parking brake is released, pull off the road allowing a longer distance than usual to stop and check the function of the brakes. Consult a Holden Retailer as soon as possible.

ABS: Anti-lock Braking System (if fitted)

When you turn the ignition switch to the ON position, this light illuminates for approximately 2 seconds and then goes out.

If the light comes on while you are driving:

- pull off the road and stop
- turn the ignition to the LOCK position
- restart the engine.

Note: If this light does not go out, consult a Holden Retailer as soon as possible. A defect may have occurred in the Anti-lock Brake System.

If there is a defect, the vehicle brake system remains operational but without ABS assistance. Refer to Chapter 4.

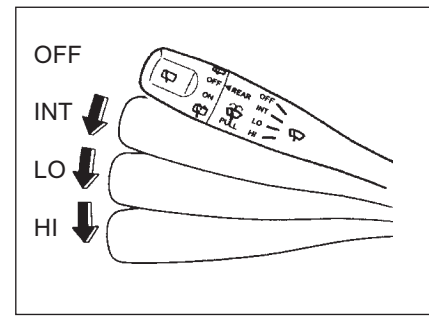
WIPERS AND WASHERS

Wipers and washers are operational when the ignition is in the ON position.

Windscreen wipers

The front windscreen wipers have three operating positions:

- INT - the wipers are activated intermittently.
- LO - the wipers operate continually at a slow speed.
- HI - the wipers operate continually at a high speed.



Turn the wipers off by returning the lever to the OFF position.

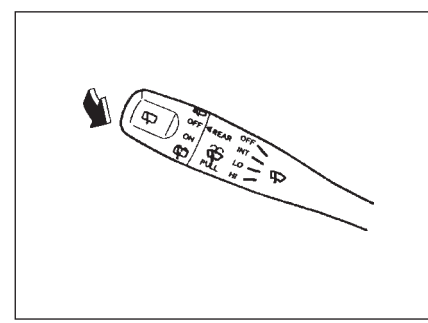
Do not activate the wipers on dry glass as this can damage the wiper rubbers.

Windscreen washer

To spray washer fluid onto the windscreen, pull the lever toward you.

The wipers activate on low speed for one sweep.

Do not activate the washer when the washer fluid reservoir is empty.



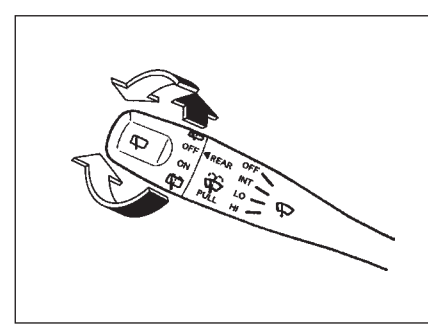
Rear window wiper / washer

Turn the end section of the lever to the ON position to activate the rear wiper.

Return the switch to the OFF position to turn the rear wiper off.

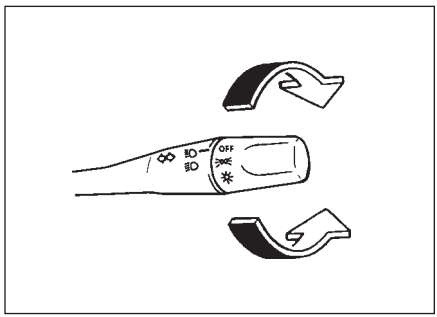
To spray washer fluid onto the rear window, turn the lever beyond the ON or OFF stops.

The wiper sweeps once on low speed when the washer is activated beyond the OFF position.



EXTERIOR LIGHTS

Light switch



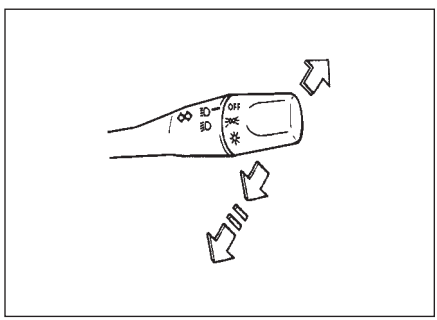
Turn the end section of the lever to the first position to switch on the:

- front parking lights
- tail lights
- licence plate light
- instrument lights.

Turn the end section of the lever to the second position to switch the headlights on in addition to the above lights.

Turn the end section of the lever back to the OFF position to turn all lights off.

High / low beam



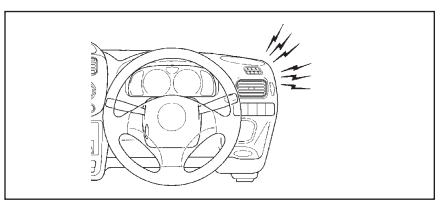
With the headlights turned on, push the lever away from you to switch the lights to high beam.

Pull the lever back towards you to return to low beam.

When high beam is selected, the high beam indicator illuminates in the instrument panel.

To momentarily activate the high beam lights whether the lights are switched on or off, pull the lever towards you beyond the low beam position.

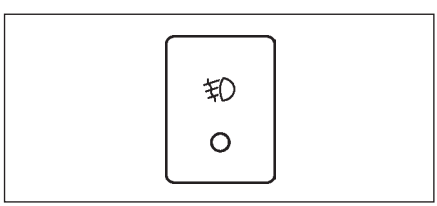
Warning chime



A warning chime sounds when:

- the lights are left on
- the ignition key is removed, and
- the driver's door is open.

Fog light switch



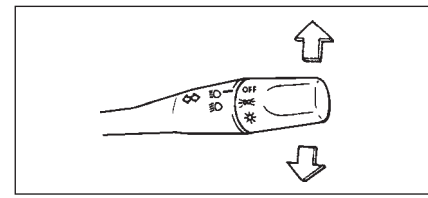
The push button for the fog lights is located in the switch group to the right of the steering wheel.

With the parking lights or headlights turned on, push the fog light switch to turn the fog lights on.

Push the switch again to turn the fog lights off.

EXTERIOR LIGHTS cont.

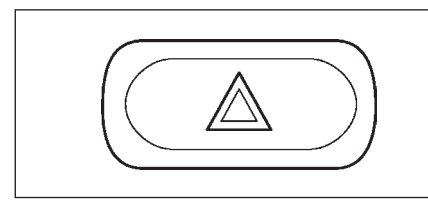
Turn signals



With the ignition switch in the ON position, push the lever up or down, as required to signal a turn. The steering wheel cancels the signal when the turn is completed.

In some turns (such as changing lanes) the steering wheel is not rotated enough to cancel the signal, so, to indicate a lane change, move the lever part way and hold. The lever will return to the rest position when released.

Hazard light switch



The hazard switch is red and located in the centre section of the dashboard.

Activate the hazard lights to warn traffic of a hazardous situation.

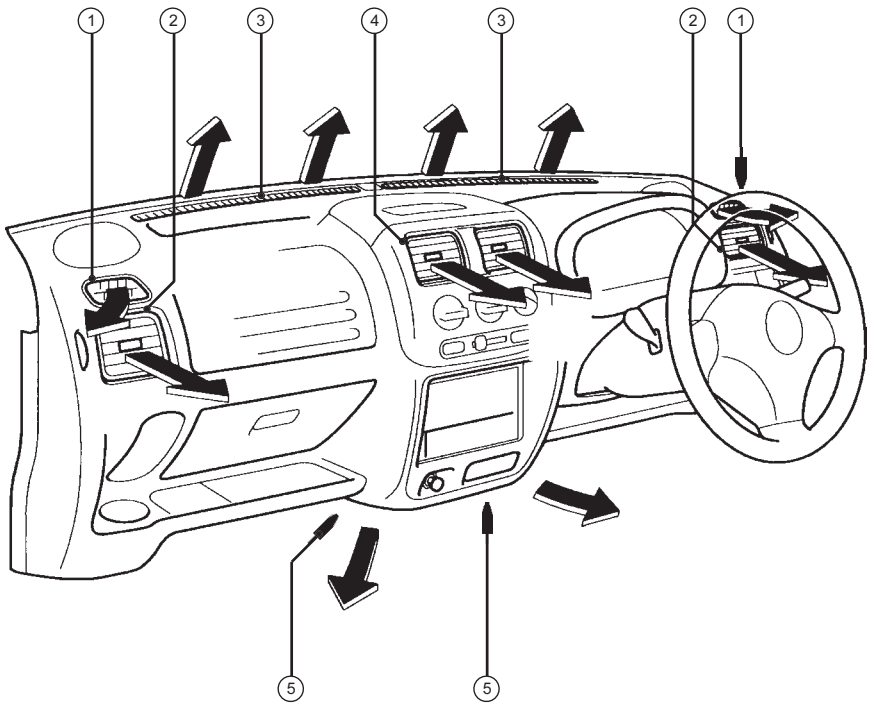
Push the hazard switch to turn on the hazard lights. All turn signal lights flash simultaneously.

Push the switch again to turn off the hazard lights.

Note: The use of the hazard warning lights while the vehicle is moving is illegal in some states.

VENTILATION

Your vehicle features a flow through ventilation system for your comfort. Under reasonable conditions, it shouldn't be necessary to open the windows.

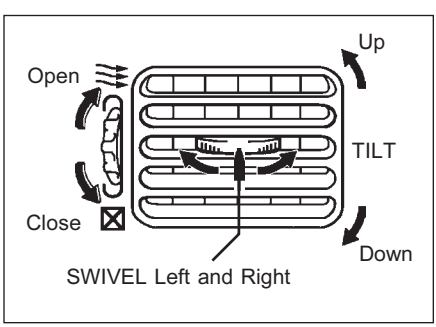


1 Side demist vent
2 Side vent
3 Windscreen demist vent
4 Centre vents
5 Foot vents

Vent adjustment

You cannot adjust the angle of the demist and foot vents.

The vents in the centre and to the side of the dashboard are adjustable. They can be swivelled and tilted as required, and the side vents can be completely closed.

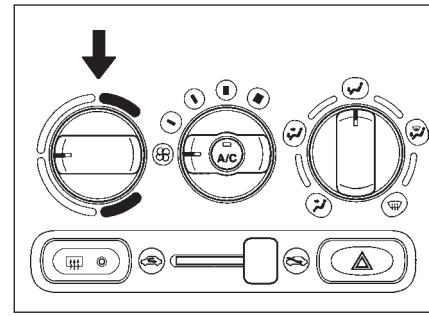


VENTILATION cont.

Temperature dial

Turn this dial:

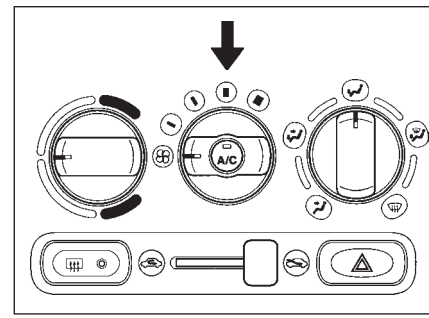
- anticlockwise for cooler air
- clockwise for warmer air.



Fan dial

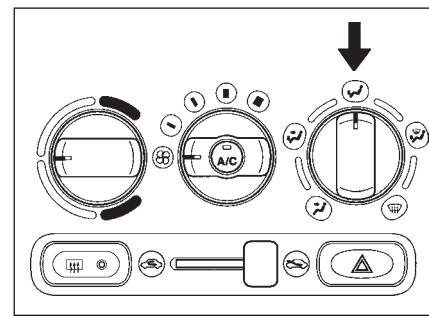
This dial has an OFF position plus four fan speeds.

The air flow rate is affected by vehicle speed as well as by the fan.

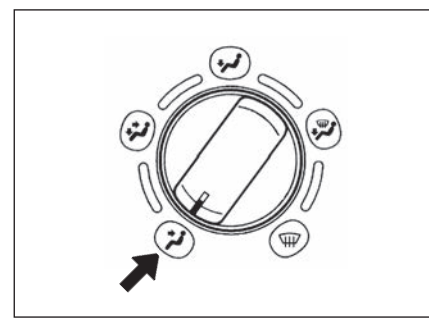


Vent dial

This dial has five positions as outlined below.



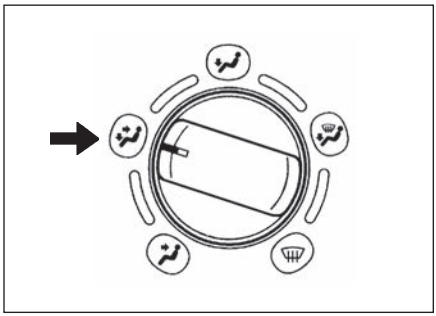
VENTILATION:
Temperature controlled air comes out of the centre and side air vents.



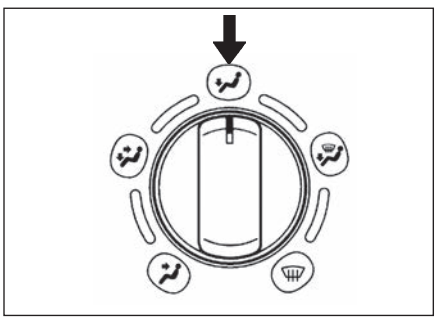
VENTILATION cont.

BI-LEVEL:
Temperature controlled air comes out of the floor vents and cooler air comes out of the centre and side vents.

With the temperature selector in the fully cold or fully hot position, air from the floor, centre and side vents is the same temperature.

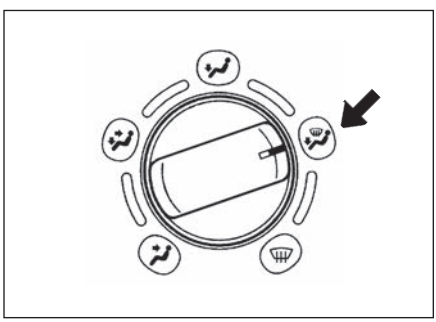


HEAT:
Temperature-controlled air comes out of the floor and side vents.



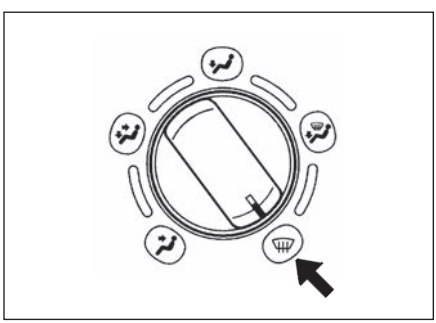
HEAT AND DEMIST:
Temperature-controlled air comes out of the following vents:

- floor vents
- windscreen demister vents
- side demister vents
- side vents.



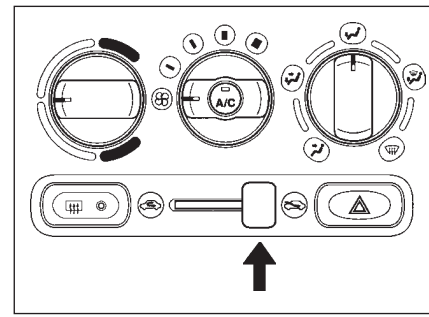
DEMIST:
Temperature-controlled air comes out of the following vents:

- windscreen demister vents
- side demister vents
- side vents.



VENTILATION cont.

Air intake selector



Slide this selector to switch between outside air and recirculated inside air.

Use the recirculate position:

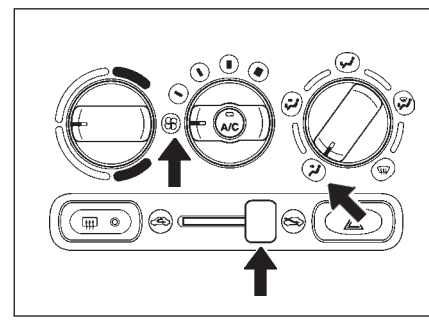
- when following a vehicle along a dusty road
- to prevent exhaust fumes or odours from entering your vehicle.

Close the windows and activate the fan (preferably on high speed) to create positive air pressure in the vehicle. This prevents dust or fumes from being sucked in.

You should not use the recirculate position for long periods of time as this reuses the interior air.

If occupants are smoking, you should not recirculate the air. Smoke can adhere to the air ducts and cause stale-smelling air.

Natural ventilation

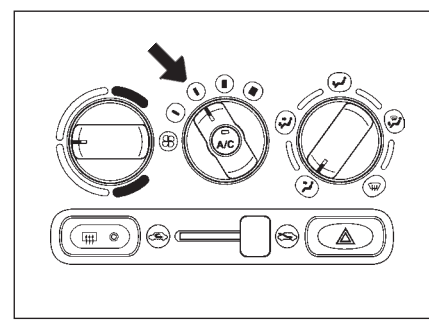


Select:

- the ventilation position on the vent dial
- the desired temperature setting
- fresh air
- OFF on the fan dial.

This allows fresh air to flow through the vehicle as you drive.

Forced ventilation



Select:

- the ventilation position on the vent dial
- the desired temperature setting
- fresh air
- the desired fan speed.

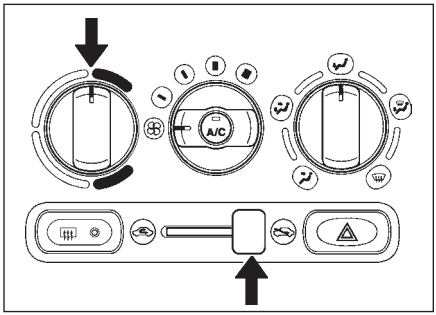
HEATING

Normal heating

Select:

- the desired heat position on the temperature dial
- the fan speed (a higher speed position increases heating efficiency)
- fresh air.

Note: Heat is not available until the engine warms up.

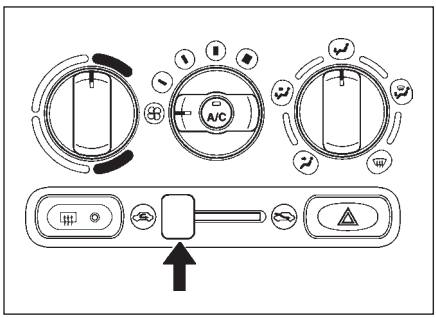


Quick heating

Select:

- the desired heat position on the temperature dial
- the fan speed (a higher speed position increases heating efficiency)
- recirculated air.

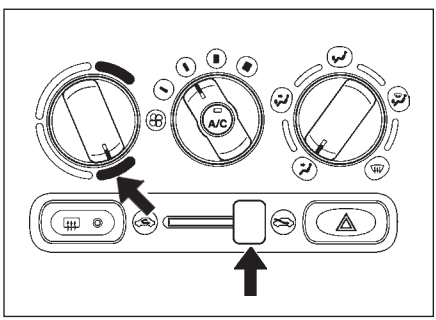
If you use this heating method for an extended period of time, the air in the vehicle can become contaminated causing the windows to become misty.



Ventilation without air conditioning

To conserve fuel when the air does not require cooling, select:

- cold on the temperature dial
- your desired fan speed
- ventilation on the vent dial
- fresh air
- open for all vents
- off for the air conditioning switch.



AIR CONDITIONING

Functions

Air conditioning cools the air and removes moisture.

While the air conditioner is in operation, you may notice changes in engine speed. This is normal.

The air conditioning system operates within preset temperature and pressure ranges. It protects itself by switching off automatically when:

- the outside temperature is below 4° C
- the component temperature is outside the preset range
- the refrigerant pressure is too low.

If the temperature dial is moved away from extreme cold, the dry air will be reheated before entering the cabin.

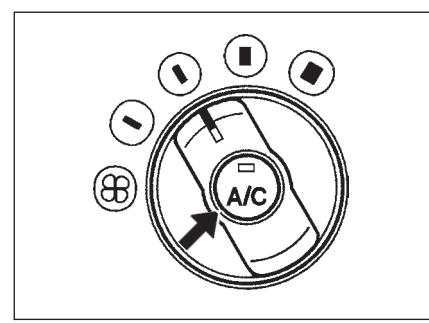
The system is also designed to turn the compressor on and off to maintain the desired temperature.

Less operation of the compressor results in better fuel economy. However, you should run the air conditioning system for 5 to 10 minutes each month, even in Winter. This lubricates the system.

Running the air conditioner

With the engine running, switch the air conditioner on by:

- pushing the A/C button (in the centre of the fan dial)
- setting the fan dial to an on position.



WARNING:

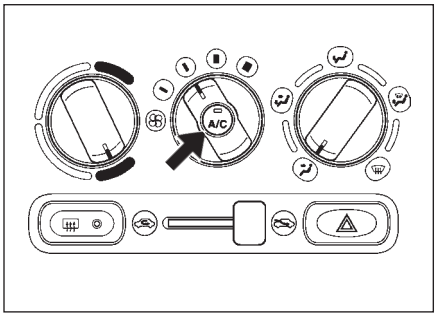
At least one vent must be open to ensure that the air conditioner system does not ice up due to lack of air movement.

Setting the fan dial to a higher speed increases cooling efficiency.

You can switch the air intake selector to either fresh air or recirculated air. The air cools more quickly when you select the recirculated setting.

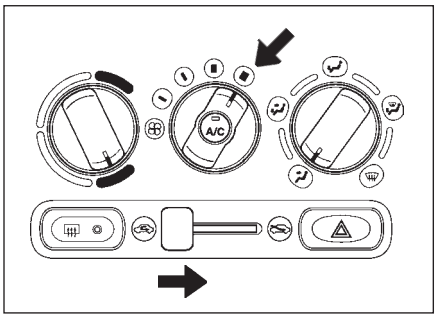
AIR CONDITIONING cont.

Normal cooling



- Switch the air conditioning switch to on.
- Select fresh air.
- Turn the temperature dial to a cold setting.
- Set the fan speed to an on position.
- Set the vent dial to ventilation.
- Open all vents.

Maximum cooling



Use this setting in hot weather or when the vehicle has been left in the sun.

Open the windows for a short time to allow the hot air to escape quickly.

- Switch the air conditioning switch to on.
- Turn the temperature dial to cold.
- Set the fan to full speed.
- Set the vent dial to ventilation.
- Open all vents.
- Select fresh air for a short time, then change to recirculated air.

WARNING:

Do not leave recirculation selected for long periods of time, as the cabin can become starved of fresh air.

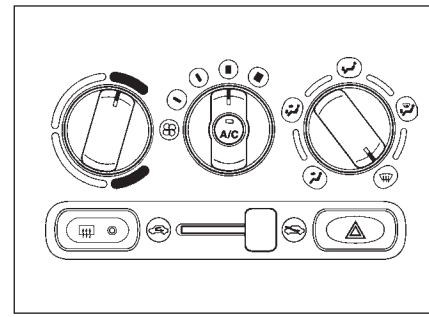
Maintenance

Your vehicle uses the air conditioner refrigerant HFC-134a, commonly called R134a. In the case of repairs or maintenance to the system, ensure only R134a is used in your vehicle.

To help maintain optimum performance and durability of your air conditioner, you should run it periodically. This circulates the refrigerant and oil and helps protect the system components.

DEMISTING

Windscreen and side windows

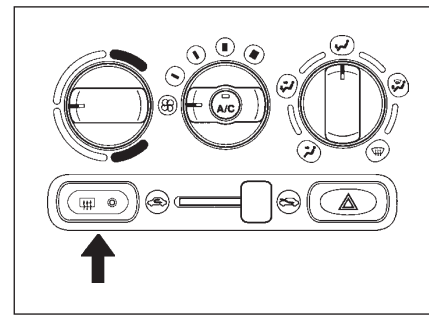


The side demister vents provide airflow to demist the side windows when the windscreen demister is selected.

- Switch the air conditioning on.
- Select fresh air.
- Set the fan speed to an on position (preferably high).
- Turn the temperature dial to hot.
- Set the vent dial to demist or heat and demist.
- Close the side vents.

The air conditioner also dehumidifies the air. Therefore it can help clear the windows even when blowing heated air.

Rear window



You can demist the rear window when the ignition switch is in the ON position.

Press the rear demister switch to turn the rear window demister on or off.

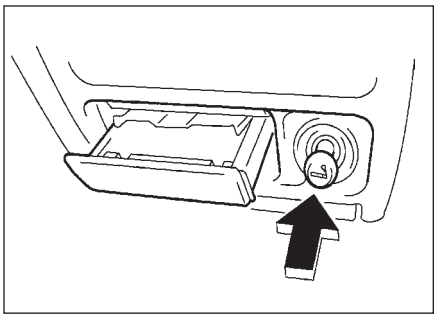
A light in the switch glows when the switch is in the on position.

WARNING:

The rear window demister uses a large amount of electricity. Ensure you turn this off once the window has cleared.

CIGARETTE LIGHTER AND ASHTRAY

Cigarette lighter



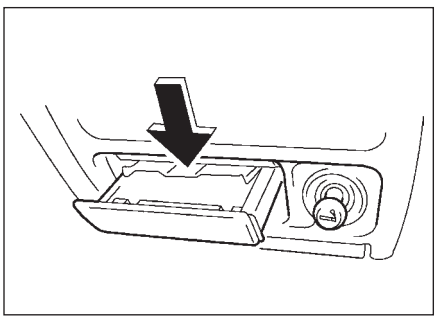
The cigarette lighter works when the ignition switch is in the ON or ACC position.

Push the cigarette lighter inwards to heat.

The lighter automatically pops out to its rest position when the element is heated and ready to use.

Note: Some accessory power plugs for use in a cigarette lighter socket can damage the inner mechanism due to an incorrectly fitting plug or electrical overload. Take care when using this socket as an accessory power source.

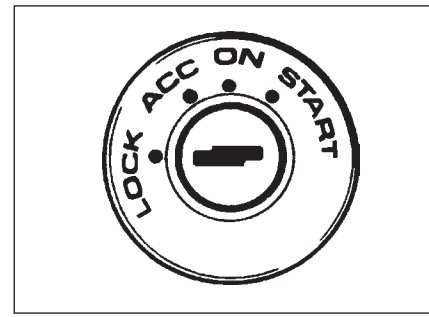
Front ashtray



To remove the ashtray for cleaning, push down on the metal plate and pull the ashtray completely out of its holder.

IGNITION SWITCH

Ignition switch



The ignition switch has four positions:

- LOCK

The normal parking position. Remove the key in this position to enable the steering lock.

- ACC

This position enables the operation of some accessories.

- ON

The normal operating position. All electrical systems are enabled.

- START

The position for starting the engine. You must release the key from this position as soon as the engine starts.

Release the steering lock

If you experience difficulty in turning the key, turn the steering wheel slightly to release the steering lock as you turn the key clockwise.

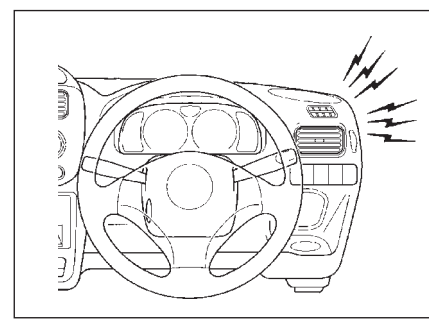
WARNING:

Do not turn the engine off while the vehicle is moving. Power assisted equipment (such as brakes and steering) which are operated by the engine will be rendered ineffective.

Do not remove the key while the vehicle is moving, as this allows the steering wheel lock to apply.

Ignition key reminder

If the key is in the ignition switch when the driver's door is opened, an audible warning activates intermittently.

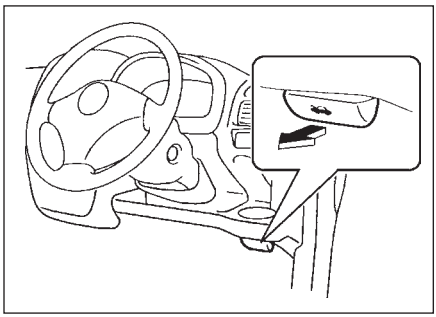


BONNET

Release lever

The bonnet release lever is located inside the vehicle, below the driver side drink holder.

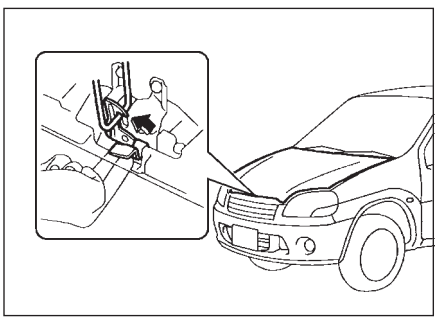
Pull the lever towards you to release the bonnet. (A safety catch prevents the bonnet from lifting fully.)



Safety catch

The safety catch is located under the front of the bonnet.

To open the bonnet completely, lift the safety catch tab while gently lifting the bonnet.

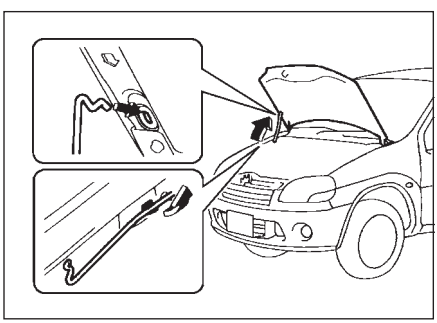


Support rod

Lift the bonnet high enough to insert the support rod into the slot provided.

Close the bonnet

To close the bonnet, first press the support rod into the slot provided, then lower the bonnet gradually most of the way, before dropping it to close by its own weight.



WARNING:

Before driving, ensure that the support rod is fixed in its rest position, the bonnet is fully closed and the bonnet release lever (inside the vehicle) has fully returned to its original position.

CHAPTER 2

Locks

Page

2-2 Keys and lock buttons

2-3 Door locks

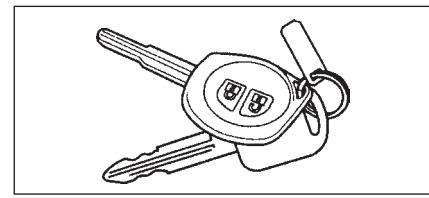
2-4 Tailgate and remote control

2-5 Immobiliser

KEYS AND LOCK BUTTONS

Keys

Your vehicle comes with immobiliser ignition keys. A key identification number is provided with the keys. Keep this number in a safe place away from your vehicle in case you need to have new keys cut. Refer to 'Immobiliser' in this chapter.



'Childproof' locks for rear doors

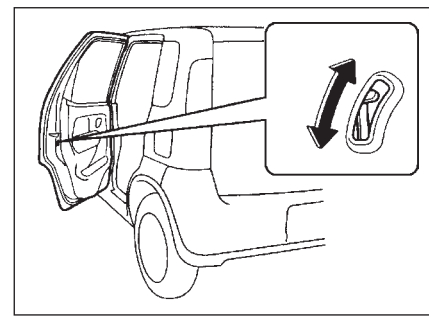
Childproof locks help prevent rear doors from being opened from inside the vehicle.

The switches are provided on the opening edge of the rear doors; accessible when the door is open.

When the switch is in the up position, the inside door handle functions as normal.

When the switch is in the down position, it disables the inside door handle.

When the childproof lock is applied, the rear door cannot be opened from the inside but can be opened from the outside.



WARNING:

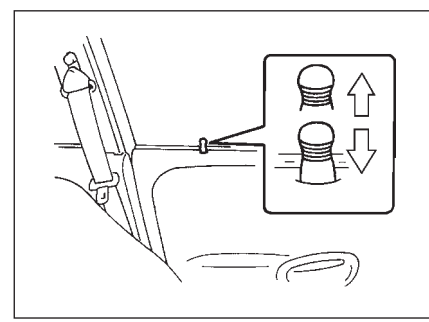
For safety, after applying the childproof lock, check that it is operating correctly.

Lock the doors from inside

Doors are locked when the inside lock button is down and unlocked when it is up.

To lock all doors (and tailgate), press the driver's side lock button.

To lock a passenger door individually, press the lock button for that door.



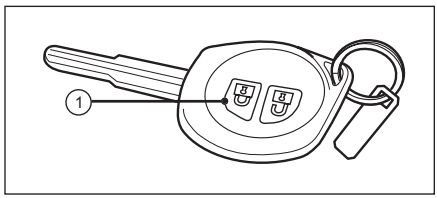
DOOR LOCKS

Locking the vehicle

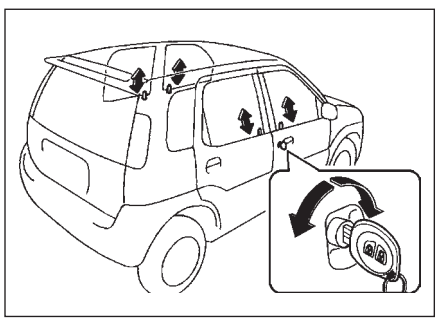
To lock all doors and the tailgate:

- press the lock button of the remote control (1), or
- turn the key in the driver's door.

The turn signal lights flash once when you lock the doors with the remote control.



To lock a passenger door individually from the outside, push the lock knob down and hold the door handle up as you close the door.



Unlocking the vehicle

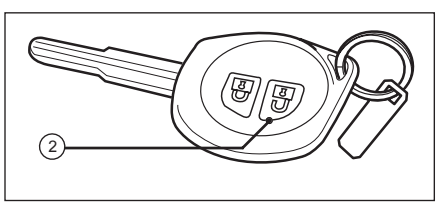
To unlock all of the doors, direct the remote control towards the vehicle and press the unlock button (2).

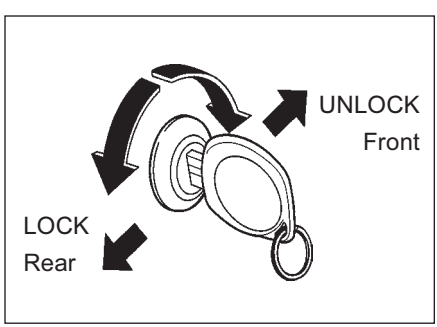
When you unlock the doors with the remote control:

- the turn signal lights flash twice
- the interior light illuminates for several seconds (when it is in the DOOR position).

The doors automatically lock again if no door is opened within approximately 30 seconds.

Unlock a passenger door individually from the inside by lifting the door lock knob.





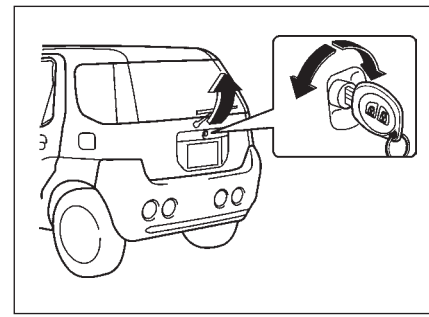
WARNING:

The door locks cannot be operated with the remote control when the key is in the ignition or when a door is not fully closed.

TAILGATE AND REMOTE CONTROL

Tailgate

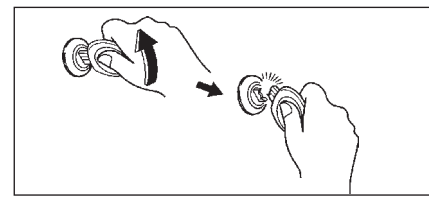
You can lock or unlock the tailgate with the remote control or by inserting and turning the key in the tailgate lock.



WARNING:

Ensure the tailgate is fully closed to avoid the entry of exhaust gases.

Do not use the key to lift the tailgate. The key might break in the lock.

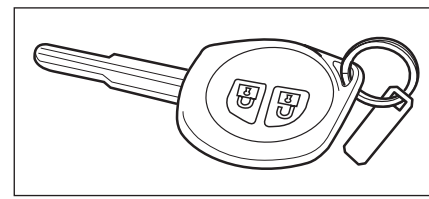


Remote control

The remote control is powered by a battery inside the key head.

If you experience a progressive loss of range with the remote control, a weakening battery is indicated.

Vehicle window tinting also reduces the range of the key if the tinting material has a metallic film.



Treat the remote control with care and do not operate it unnecessarily.

WARNING:

The remote control transmitter is a sensitive device. Do not expose it to impacts, moisture or high temperatures.

If you lose your remote control, contact a Holden Retailer for a replacement and to have the lost one deactivated.

Operating distance

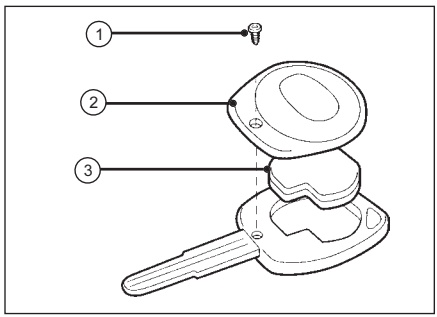
The maximum operating distance of your remote control can vary depending on the surroundings, such as:

- radio towers
- CB radios
- other transmitting devices.

REMOTE CONTROL AND IMMOBILISER

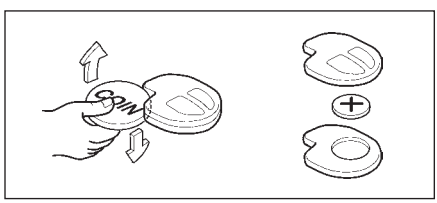
Replacing the battery

If the remote control becomes unreliable, replace the battery. Use a lithium disc type battery, CR1616 or equivalent.



- Remove the screw (1) that attaches the battery cover (2).
- Remove the transmitter (3).
- Put a suitable coin or flat blade screwdriver in the slot of the transmitter and pry it open.

The battery is revealed.



- Replace the battery.

The positive terminal faces the '+' mark on the transmitter.

- Close the transmitter and install it into the transmitter holder.
- Install the battery cover.
- Install and tighten the screw.
- Check the operation of the remote control.
- If the remote control functions correctly, dispose of the used battery properly.

WARNING:

Keep lithium batteries away from children and pets. Swallowing a lithium battery can cause serious internal injury. If swallowed, contact a doctor immediately.

Immobiliser

The immobiliser system electronically disables the engine starting system.

An electronic identification code is programmed into the ignition key. The key communicates this code to the vehicle when the key is turned to the ON position to disarm the immobiliser.

If the immobiliser system light blinks while the ignition is on, there may be a fault with your key or the immobiliser system. Ask your Holden Retailer to inspect the system.

Immobiliser keys from other vehicles can interfere with your vehicle. Keep those keys away from the ignition switch when using your vehicle.

If you need spare keys to be made, refer to your Holden Retailer. The vehicle must be programmed with the correct identification code for the spare keys. If you lose a key, it is recommended that you have the associated code removed from the on-board module. The code for replacement keys needs to be activated in your on-board module, by your Holden Retailer, to enable their use.

CHAPTER 3

Know your vehicle

Page

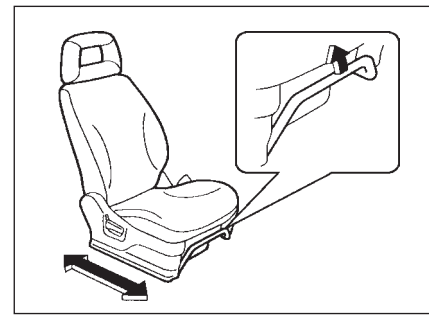
3-2 Front seat adjustment
3-3 Head restraint and lumbar support adjustment
3-4 Rear seat adjustment
3-5 Seat belts
3-9 Child restraints
3-12 Mirrors
3-13 Windows
3-15 Interior lights and assist grips
3-16 Brake pedal
3-17 Park brake and steering
3-18 Clutch pedal
3-19 Roof rails and underseat tray
3-20 Luggage compartment cover

FRONT SEAT ADJUSTMENT

Forward / rearward

To adjust a front seat:

- pull up on the lever at the front of the seat
- slide the seat forward or backward
- release the handle
- try to move the seat back and forth to ensure that the catch has locked in position.



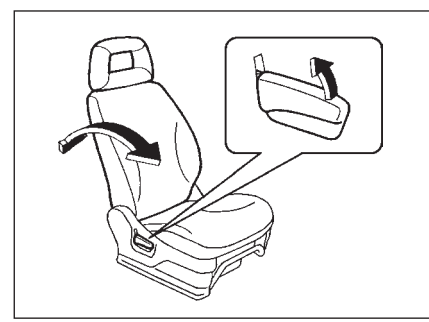
WARNING:

Do not attempt to adjust the driver's seat while driving the vehicle.

Recline / incline

To adjust the angle of the back of the seat:

- pull up the lever on the door side of the seat
- angle the seat-back to the desired position
- release the lever
- try to move the seat-back to ensure it is locked into position.



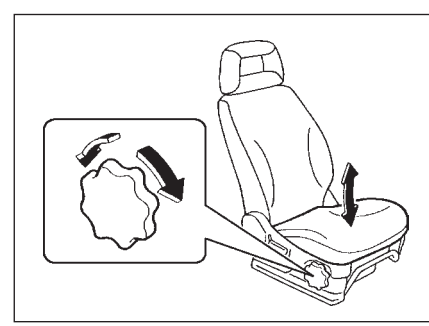
WARNING:

To avoid reducing the effectiveness of seat belts it is recommended that the reclining seats be used in no more than a semi-reclined position when the vehicle is moving. The fully reclined position should be used only when the vehicle is stationary.

Driver's tilt adjustment

The driver's seat is equipped with a tilt adjuster knob on the door side of the seat.

Turn the adjuster knob to raise or lower the seat as required.

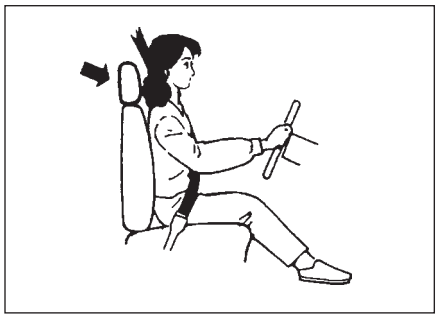


HEAD RESTRAINT AND LUMBAR SUPPORT ADJUSTMENT

Head restraint adjustment

Head restraints are designed to reduce the risk of neck injury in the case of an accident.

Adjust the restraint so that the top of the restraint aligns with the top of your ears.



WARNING:

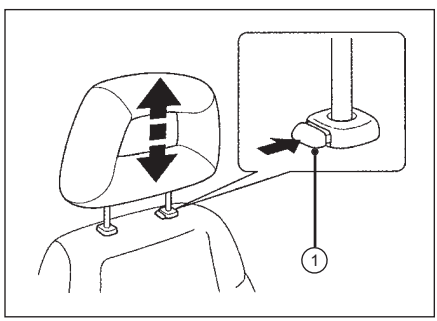
Do not drive the vehicle with the restraints removed.

Do not attempt to adjust the restraint while you are driving.

To raise the restraint, pull it upward until it clicks into the desired position.

To lower the restraint:

- hold in the release button (1)
- push the restraint down as desired
- release the release button
- move the restraint slightly up or down until it clicks into the nearest position.

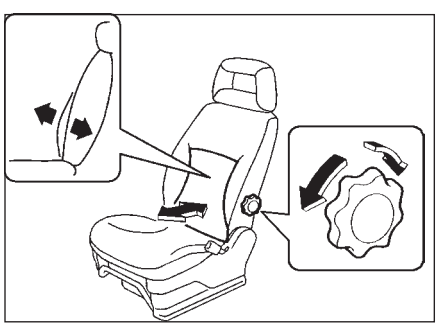


Head restraint removal

To remove a head restraint for cleaning or replacement, push the release button and lift the head restraint completely out.

Lumbar support adjuster lever

Adjust the lumbar support to your comfort by turning the adjuster lever.



REAR SEAT ADJUSTMENT

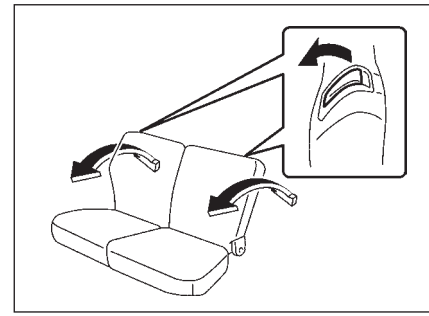
WARNING:

To avoid injury from passing traffic, do not stand on the road side of the vehicle when converting the rear seat.

Recline / incline

To adjust the angle of the back seat:

- pull up the lever on the top of the seat
- angle the seat-back to one of the lock positions
- release the lever
- try to move the seat-back to ensure it is locked into position.



WARNING:

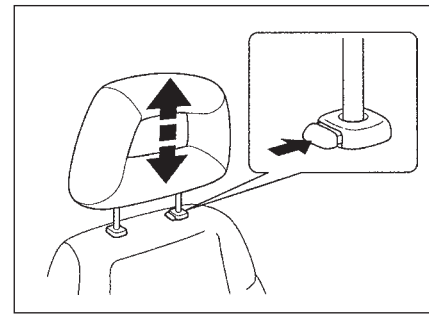
Seat belts are designed to offer maximum protection when seat-backs are in the upright position.

For transporting long objects

Fold a rear seat fully forward as described previously; you may need to tilt the seat in front forward to do this.

The other seat can continue to be used for a passenger.

Fold down both rear seats for maximum space.

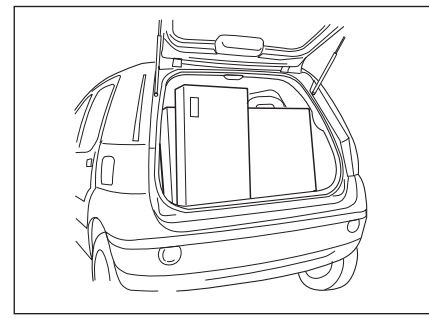


Repositioning the rear seats

When repositioning the rear seats make sure that the seat belt is not trapped and that the seat-back is fully locked into position.

Tall objects

To transport tall objects, unhook the luggage compartment cover at the tailgate and remove the cover from the side guides. This enables tall objects to be stowed vertically.



SEAT BELTS

Australian law requires that the driver and all passengers be properly restrained at all times with the seat belts provided in the vehicle. Failure to do so could increase the chance of injury and / or the severity of injury in accidents.

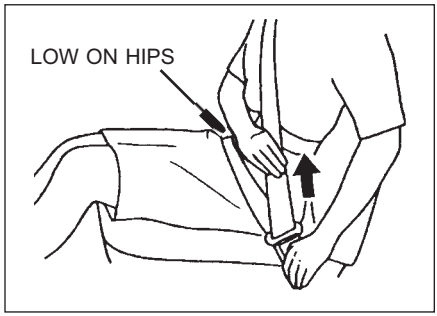
You must wear a seat belt whether or not an airbag is mounted at your seating position.

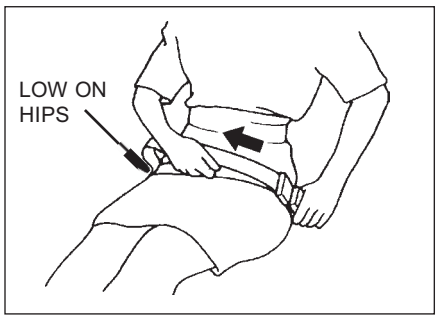
WARNING:

Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oil and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.





It is essential to replace the entire assembly after it has been worn in a severe impact, even if damage to the assembly is not obvious. Belts should not be worn with straps twisted.

Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

No modification or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

The positioning of the tongue restrictor must never interfere with, or stop, the belt from fully retracting.

SEAT BELTS cont.

Lap-sash belts

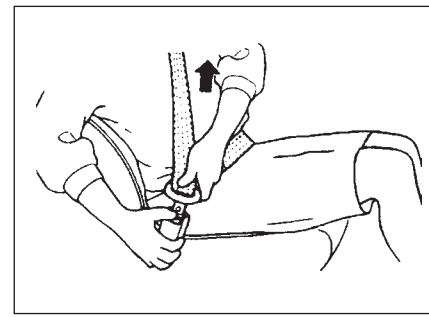
To put on a lap-sash seat belt:
- pull the metal tongue across your body
- clip it into the buckle (listen for a click)
- settle the belt at the hip
- tension the belt by tugging the sash upward.

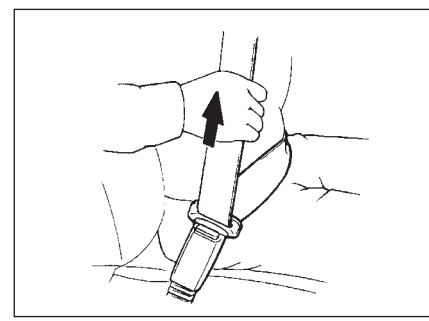
Allow any extra belt length to retract.

The lap section should be worn as low as possible on your hips, not on your waist. Make sure the sash and lap sections of the seat belt are free from twists and fit firmly.

The emergency-locking retractor allows you to move freely while the vehicle is travelling normally. The belt will lock immediately if any of the following occur:
- fast braking
- impact with a solid object, or
- quick movement by the wearer.

To undo the belt, press the release button on the buckle and allow the belt to fully retract.
Ensure that the belt retracts without twisting.

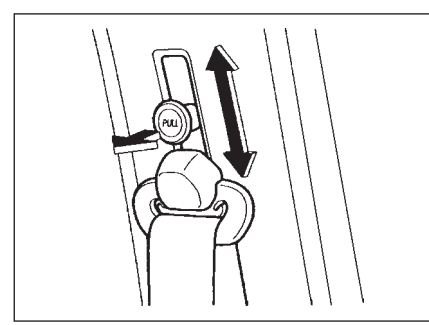




Seat belt height adjust

The front seat belts are equipped with upper anchorage points.

To adjust the shoulder anchor height:
- pull the lock knob out
- slide the anchor up or down as desired
- release the lock knob
- ensure that the anchor is securely locked in position.



Adjust the height so that the belt passes over the centre of the shoulder and rests against the shoulder. It must not pass over the neck or upper arm.

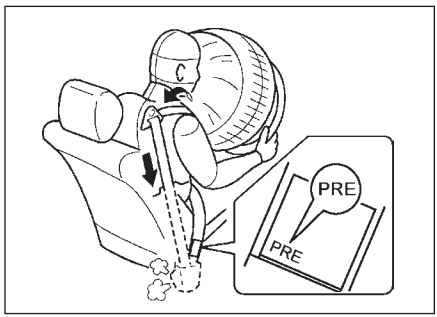
Short people should select a low belt guide position and tall people a higher one.

WARNING:

Do not adjust the seat belt height while driving.

SEAT BELTS cont.

Seat belt pretensioners



The front seat belt system incorporates seat belt pretensioners. These are located in each front seat belt retractor.

The seat belt pretensioner system is triggered when the airbags are triggered and can be activated only once.

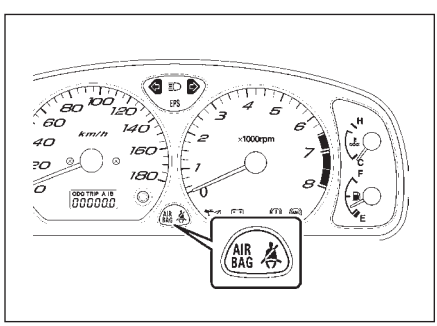
When activated, the pretensioner system tightens the seat belt and the retractors lock the seat belts in the tightened position. The pretensioner and airbag systems will activate only in a moderate or severe front-on collision. They are NOT designed to activate in rear impacts, side impacts, rollovers or minor front-on collisions. During activation, some noise and smoke may be released. These conditions are not harmful and do not indicate a fire in the vehicle.

WARNING:

If the seat belt pretensioners have been activated, they must be replaced, preferably by a Holden Retailer.

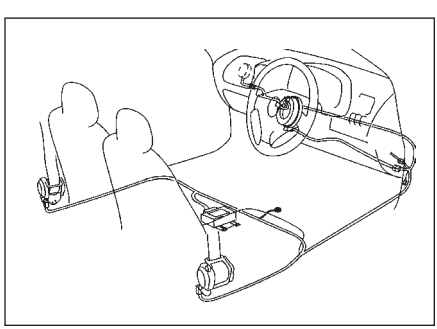
If the AIR BAG light on the instrument panel does not blink or illuminate briefly when you turn the ignition switch on, stays on for more than 10 seconds or illuminates during driving, the pretensioner system or the airbag system may not work properly.

Have both systems inspected by a Holden Retailer as soon as possible.



Servicing

Service on or around the pretensioner system components must only be performed by an authorized Holden Retailer. Improper service could result in unintended activation of pretensioners, rendering the pretensioner inoperative and could increase the risk of personal injury.



SEAT BELTS cont.

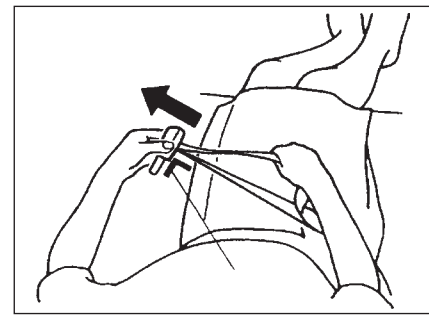
Lap seat belt

To put on a lap seat belt:

- pull the buckle tongue across your lap
- press the tongue into the buckle until it clicks into position
- pull the free end of the belt until it is adjusted to a firm, but comfortable fit.

To lengthen the lap seat belt:

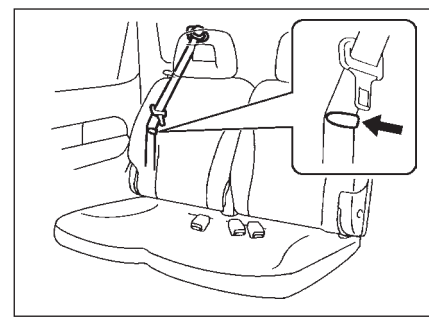
- release the tongue from the buckle unit
- pull the adjuster at right angles to the belt
- insert the tongue into the buckle (tighten again if necessary).



Seat belt hangers

The outer rear seats are equipped with a seat belt hanger to hold the buckle when the seat belt is not in use.

When you move or adjust a seat, use the hanger to avoid accidental damage to the seat belt.



Seat belt inspection

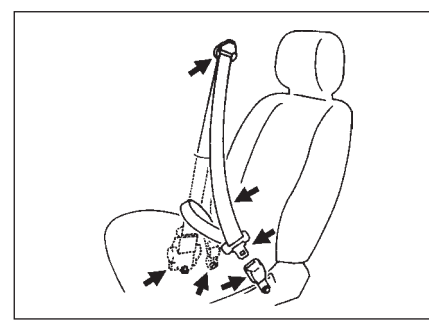
Periodically inspect the seat belts to make sure they work properly and are not damaged.

Check:

- webbing
- buckles
- latch plates
- retractors
- anchorages
- guide loops.

Have any seat belts replaced that are damaged or do not work properly.

Consult your Holden Retailer if you need assistance with this inspection or for seat belt replacement.



CHILD RESTRAINTS

Always ensure that the seat belt fits firmly around the child restraint. If a child cannot see out of the window, do not raise the child by means of an ordinary cushion. It will not stay in place in a collision and the child can slip out of the straps and become entangled.

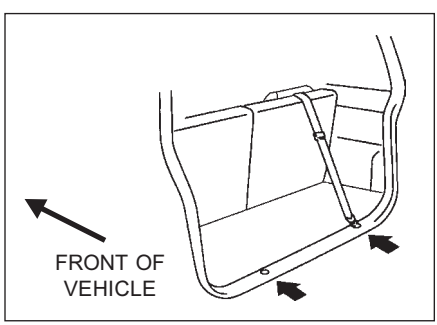
WARNING:

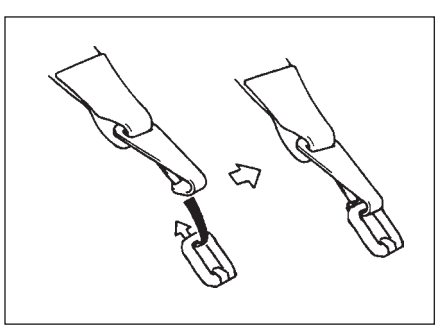
- **Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts, harnesses or for attaching other items or equipment to the vehicle.**
- **Only child restraints that have clips to attach to the vehicle's anchorage fittings are to be used (refer to the illustrations on the following pages).**
- **Earlier types of child restraints may not attach securely to this type of anchor and should not be used.**
- **Only Standards Australia approved child restraint harnesses should be used. You should only purchase a child restraint which carries the appropriate Standards Australia sticker of approval. Consult your Holden Retailer for advice about the various types of approved child restraints available.**

Anchorage locations

Two anchorage hooks are located in the luggage compartment near the rear door.

Your vehicle is designed to accommodate a child restraint on each rear seat. When using a child restraint, carefully follow the relevant installation instructions supplied with the restraint.





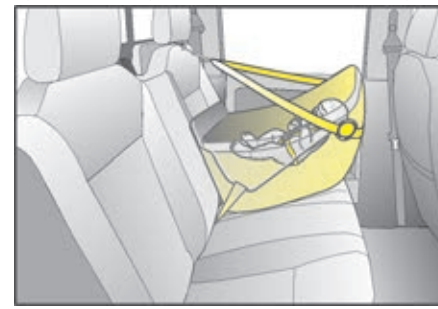
WHICH TYPE OF CHILD RESTRAINT FOR YOUR CHILD?

Children should be restrained at all times and fitted with a child restraint appropriate to their size when travelling in a vehicle. Following are some guidelines about selecting the appropriate restraint for your child.

Infants

Rearward facing infant capsule		
Weight	**Height**	**Approx. Age**
Less than 9 kg	Less than 70 cm	Up to 6 mths

Designed so that in the event of a collision, impact forces will be evenly spread over the baby's back, with minimal jarring to the vulnerable head and neck area.

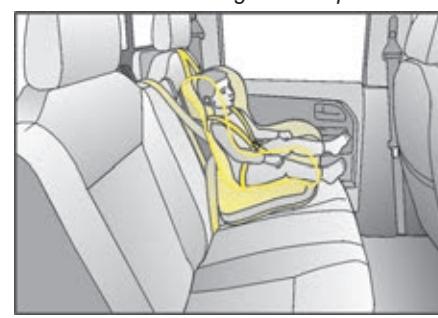


Rearward facing child capsule

Young children

Forward facing child seat		
Weight	**Height**	**Approx. Age**
8 to 18 kg	70 to 100 cm	6 mths to 4 yrs

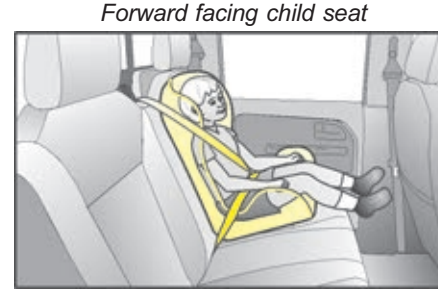
For use when the child is able to sit and easily hold his or her head upright. It is also possible to purchase convertible seats which can be used as a rearward facing child restraint or converted to a forward facing child seat.



Forward facing child seat

Booster seat with lap / sash seat belt		
Weight	**Height**	**Approx. Age**
–	More than 100 cm	4 to 10 yrs

When children outgrow a typical forward-facing child seat but they are still too small for lap-sash seat belts. A booster seat raises the child so that the knees bend comfortably, the lap-sash seat belt is correctly positioned and the child can see out the window. A rigid booster seat with a back, side wings and sash guide gives the best protection. In assessing the range of children who would benefit from booster seats, height is a better indicator than age or weight.



Booster seat with lap-sash seat belt

Older children

A child should use a normal lap-sash seat belt only when:

- he / she can sit against the back of the rear seat with knees bent comfortably at the edge of the seat,
- lap belt rests low and snug across the hips – not across the stomach,
- sash belt is centred on shoulder and chest,
- he / she is able to stay seated like this for the entire trip.

Adult lap-sash seat belt

CHILD RESTRAINTS cont.

Child restraint locking mechanism

The seatbelts for the rear seats have an Automatic Locking Ratchet (ALR). Once this mechanism is activated, it allows the belt only to retract.

To activate the ALR mechanism, extend the seat belt to its maximum length. To deactivate the ALR mechanism, let the seat belt retract fully.

This function may be useful as an additional means of locating child restraint when used in conjunction with the approved child restraint anchorage point.

Note: It is always better to install a child restraint in the rear seat.

WARNING – EXTREME HAZARD:

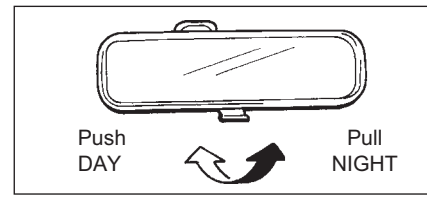
Do not use a rearward facing child restraint on a seat protected by an airbag in front of it. The child could be seriously injured if the airbag inflates, as the child's head would be very close to the inflating airbag.

MIRRORS

Internal rear view mirror

Grasp the mirror and swivel to adjust it as desired.

Pull the lever on the lower edge of the mirror to reduce the glare from vehicles behind you at night.



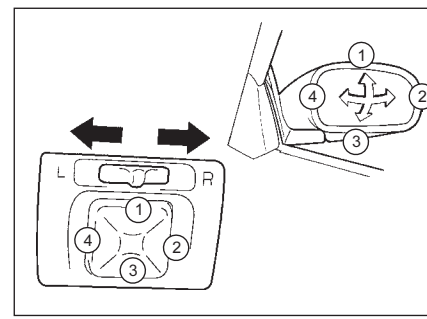
Electric exterior mirrors

The switch to control the electric mirrors is located in the dashboard, to the right of the steering wheel.

You can adjust the mirrors when the ignition switch is in the ACC or ON position.

To adjust the mirrors:

- move the selector switch at the top to L for the left mirror or R for the right mirror, as required.
- Press the outer edge of the four way knob that corresponds to the direction you need to move the mirror.
- When you have finished adjusting the mirror, move the selector switch back to the central position. This prevents accidental adjustment.



WARNING:

The passenger-side mirror is convex, making objects appear further away than they actually are.

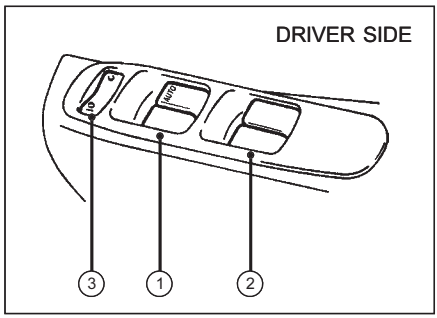
WINDOWS

Electric windows

The electric windows can be operated when the ignition is in the ON position.

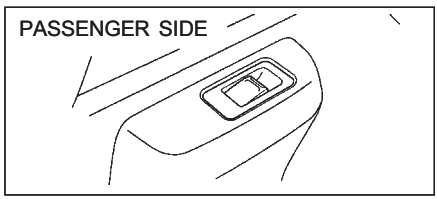
The main switch panel is located in the driver's door. The centre switches (1) are for the front windows and the rear switches (2) are for the rear windows. The front switch (3) is a lock switch. Refer to Lock switch, following.

Individual window switches are located on the front passenger door and in the rear doors.



WARNING:

To avoid injury to children from incorrect use of electric windows, do not leave the key in the ignition when you leave the vehicle.



Opening and closing windows

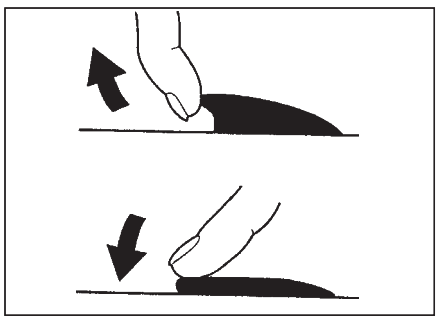
To close a window, lift the top part of the switch. To open a window, push the top part of the switch.

To operate a window in stages, tap (or for closing, briefly lift) the switch.

The driver's window has an auto-down feature. This means you can open the driver's window fully without holding the window switch down.

Press the driver's window switch completely down and release it. To stop the window during automatic opening, briefly lift the switch.

Note: The rear door windows are not designed to open fully.



WARNING:

To avoid injury, ensure that the window is clear of all body parts before closing the glass.

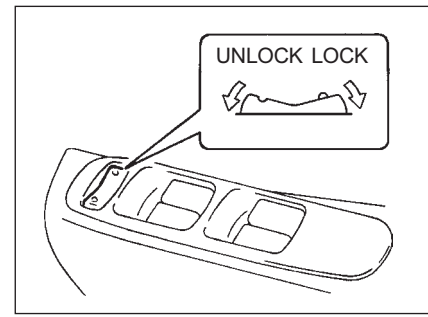
WINDOWS cont.

Lock switch

The driver's door also has a lock switch for the passenger windows.

When you push the lock side of the switch, the passenger windows cannot be operated.

Push the unlock side of the switch to restore normal operation.

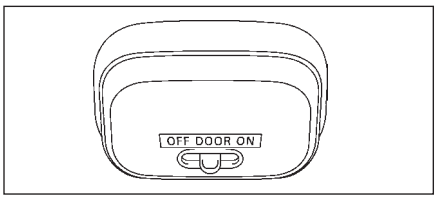


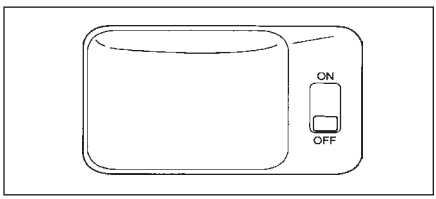
INTERIOR LIGHTS AND ASSIST GRIPS

Interior lights

The front and / or rear interior lights come on when:

- the front and / or rear light switch is in the ON position, or
- the switch is in the DOOR or centre position and a door is open.

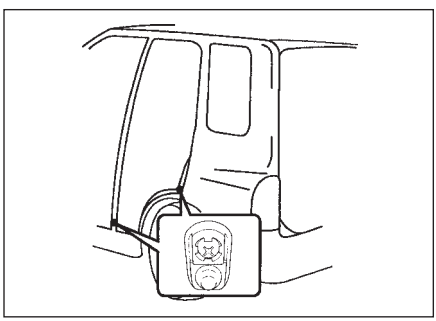




Interior light door switches

Switches in the door openings activate the interior lights.

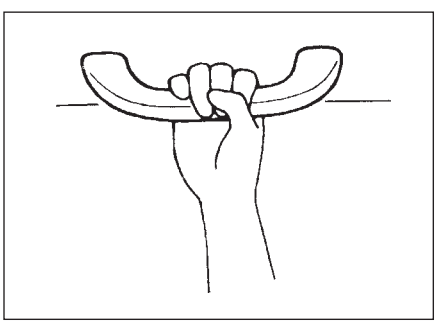
The switches have a rubber boot, with the exception of the tailgate opening.



Assist grips

Assist grips are provided for your convenience.

You should not hang items from the assist grips that obstruct the driver's vision or that could be thrown in an accident.



BRAKE PEDAL

Your vehicle is equipped with front disc brakes and rear drum brakes. Pressing the brake pedal applies both sets of brakes.

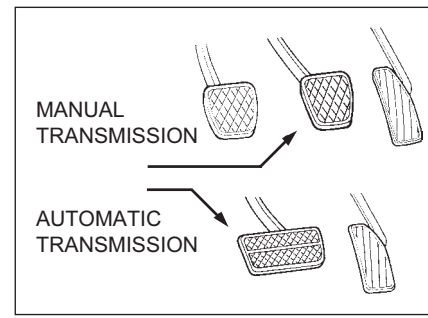
Refer to Chapter 4 for details on ABS.

Pedal adjustment

The brake system on your vehicle is self-adjusting so there is no need for pedal adjustment.

However, have the brake system inspected by a Holden Retailer if:

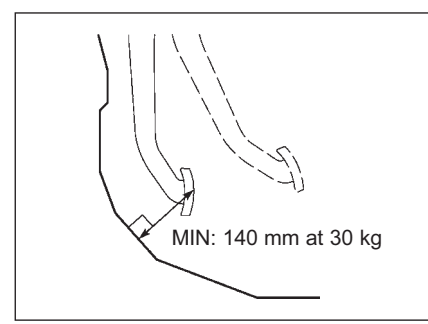
- the pedal to floor distance is less than 140 mm (5.5 in.)
- the brake pedal feels spongy when you press it
- you experience poor braking performance
- the brakes drag
- you hear excessive noise when braking
- the brake pedal pulsates
- the brakes do not work uniformly on all wheels.



Check the pedal to floor distance

1. Park on level ground and apply the park brake.
2. Ensure the transmission is in neutral / park.
3. Run your vehicle at idle.
4. Press the pedal with approximately 30 kg (66 lb.) of force.
5. Measure the distance between the brake pedal and floor wall.

When measuring the distance between the brake pedal and floor, do not include the floor mat or rubber in your measurement.



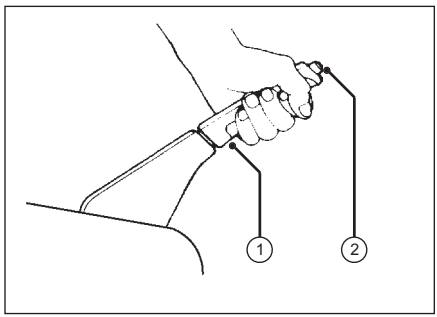
PARK BRAKE AND STEERING

Park brake

To apply the park brake, pull the lever (1) straight up.

To release the park brake:

- pull the lever slightly upwards
- push and hold the release button (2) on the end of the lever
- lower the lever all the way down.



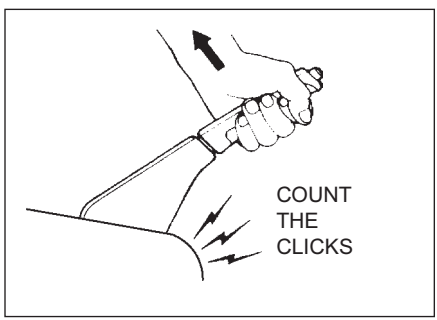
WARNING:
Never drive the vehicle with the park brake applied.

Park brake adjustment

The park brake adjustment changes as the brake shoes wear. Check the adjustment by counting the number of clicks as you fully apply the park brake.

The park lever should stop between four and 10 clicks (the forth and ninth ratchet teeth). At this point, the rear wheels must be firmly locked.

If the park brake is not properly adjusted, have it inspected and adjusted by a Holden Retailer.



Steering

The steering wheel should turn easily and smoothly without rattling.

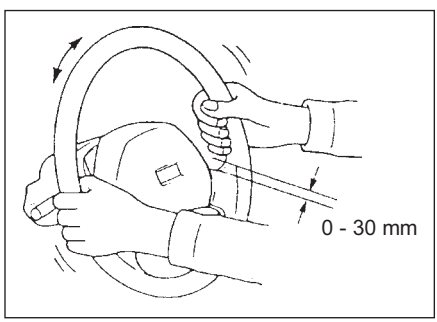
Check this by turning it all the way to the right and to the left while driving very slowly in an open area.

Check the play in the steering wheel by:

- turning it slightly from left to right
- measuring the distance that it moves before you feel resistance.

The play should be between 0 and 30 mm (0.0 – 1.2 in.)

If the amount of play is more than 30 mm or you suspect a fault, have the steering system inspected and adjusted by a Holden Retailer as soon as possible.

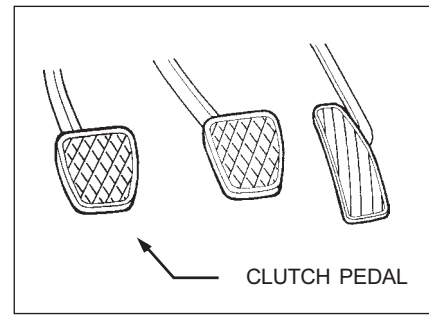


CLUTCH PEDAL

Only vehicles with manual transmission are equipped with a clutch pedal.

Press the pedal to disengage the clutch when you:

- start the engine
- stop the vehicle
- shift the transmission lever.



Pedal adjustment

Have the clutch operation inspected by a Holden Retailer if:

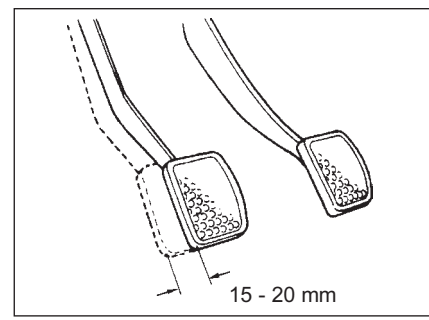
- there is too much or too little movement in the pedal
- you experience clutch dragging with the pedal fully pressed
- you experience clutch slipping with the pedal fully released.

Check the pedal movement

1. With your hand, move the clutch pedal from its rest position until you feel increased resistance.
2. Measure this distance.

The movement in the clutch pedal should be between 15 – 20 mm (0.6 – 0.8 in).

Consult your Holden Retailer if this measurement is outside the recommended range.

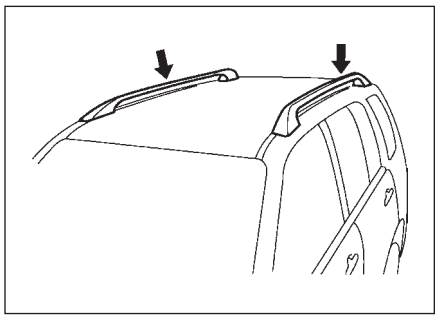


WARNING:

Do not drive with your foot resting on the clutch pedal. This can cause excessive clutch wear, clutch damage and reduce engine braking efficiency.

ROOF RAILS AND UNDERSEAT TRAY

Roof rails



You can use the roof rails for extra luggage space and for items that are too large for the rear luggage compartment.

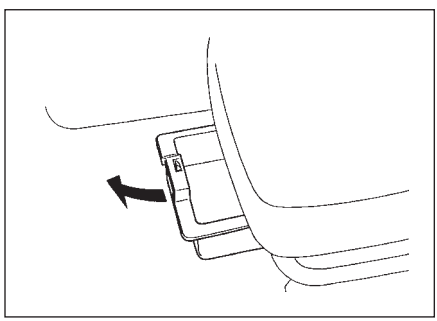
If you use the roof rails, observe the following precautions:

- Do not mount cargo directly onto the roof panel.
- Do not exceed the loading capacity of the roof rails (refer to Chapter 10).
- Do not exceed the Gross Vehicle Mass rating (GVM) (refer to Chapter 8 and Chapter 10).
- Ensure that you load cargo onto the roof rails securely, with the heaviest items at the bottom and as evenly distributed as possible.
- Do not carry items that hang over the bumpers or the sides of the vehicle, or items that block your view.
- Secure long items, such as wood panels, surfboards or ladders, to both the front and rear of the vehicle.
- Ensure that the roof rails are securely installed and free from damage.

WARNING:

Periodically check that your cargo is securely fastened to the roof rails and drive at a safe speed avoiding abrupt manoeuvres.

Underseat tray



A storage tray is located under the front passenger seat.

Pull the lever forward and up to draw out the tray.

Be sure to push the tray back in before driving.

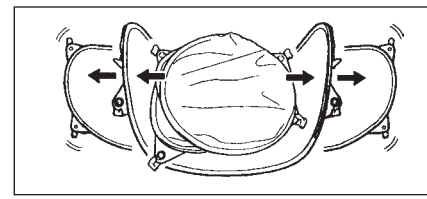
LUGGAGE COMPARTMENT COVER

You can use the luggage compartment cover to hide cargo that is placed in the rear compartment.

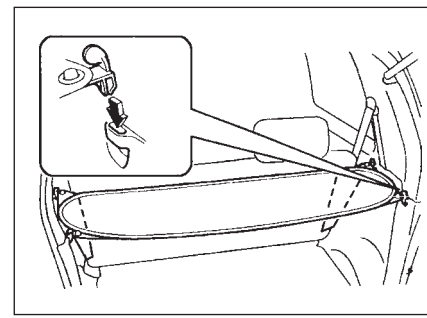
Install the cover

To install the luggage compartment cover:

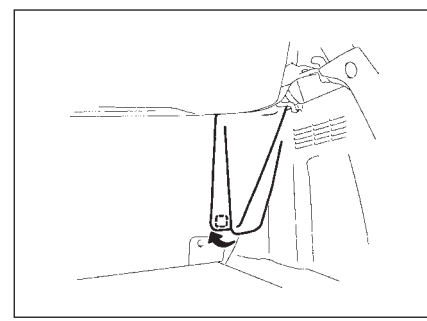
- carefully allow the spring action to open the cover (this can happen suddenly)



- insert each of the four clips into their respective retainers



- fasten the lower extensions to the back of the rear seats.



Remove the cover

To remove the luggage compartment cover:

- detach the lower extensions from the back of the rear seats
- release each of the four clips from their respective retainers
- lift the cover out from the rear of the vehicle.

WARNING:

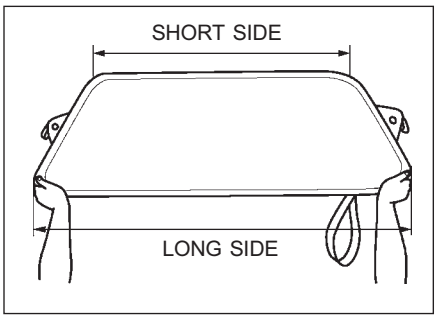
Do not leave loose articles or luggage in the passenger compartment. Whenever possible, loads stowed in the luggage compartment should be firmly secured. (Items could obstruct the driver's vision or be thrown in an accident, causing injury.)

LUGGAGE COMPARTMENT COVER cont.

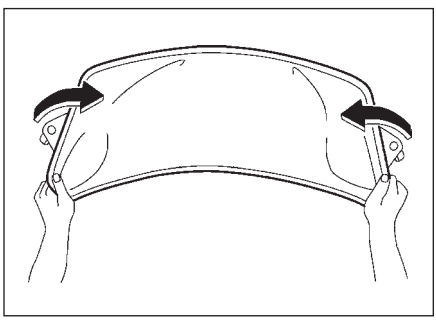
Fold the cover

Fold the luggage compartment cover as follows:

- Grip both ends of the cover.

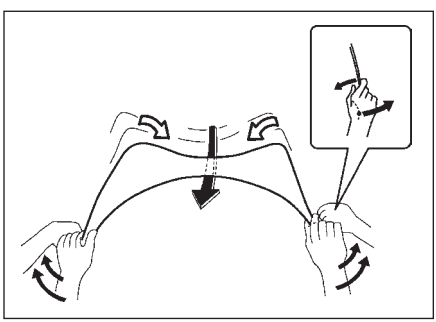


- Bend the ends towards the centre.

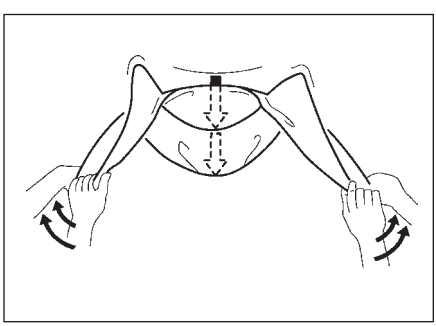


- Bend the cover further by turning your wrists.

  (Press the cover frame outward with the root of your thumb and inward with your forefingers.)



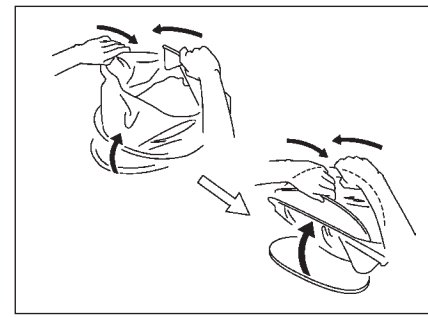
The short side of the cover should come toward you, passing under the long side.



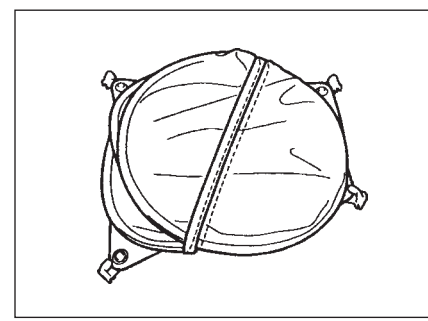
LUGGAGE COMPARTMENT COVER cont.

- Fold the luggage compartment cover fully so that each end becomes a ring due to the spring force.

  The short side of the cover now rises and becomes a ring as well.



- Bind the cover securely to avoid unintentional opening.



Notes

CHAPTER 4

Driving

Page

4-2 Engine starting

4-3 Safety

4-4 Automatic transmission

4-6 Manual transmission

4-7 Snow chains and driving precautions

4-8 ABS (Anti-lock Braking System)

ENGINE STARTING

Start the engine as follows:

1. Apply the park brake firmly and release only after you have started the engine and are ready to drive off.
2. MANUAL: Press the clutch pedal and shift the gear lever to the N (neutral) position.

   AUTOMATIC : Move the shift lever to the P (park) or N (neutral) position.
3. Keep your foot off the accelerator pedal prior to and during starting. Pressing the accelerator pedal increases cranking time. It does not help the engine to start.

   Follow this procedure for both cold and hot starting.

   Turn the key to the start position only until the engine starts. Release the key.

If the engine does not start after 15 seconds of cranking, wait about 15 seconds before trying again. This allows the starter motor to cool.

If the engine will not start and the Check Engine warning light in the instrument panel flashes, turn the ignition key to the OFF position. Wait for at least 2 seconds then try to start the engine again.

Contact Roadside Assist if the engine still will not start. Refer to Chapter 9.

Running-in (the first 1,000 km especially)

The future performance and reliability of the engine depends largely on the care and restraint that you exercise during running in.

After starting, do not race the engine; gradually warm it up.

Start off from a standstill slowly.

Drive your vehicle at various speeds. This improves the bedding-in of parts.

Note: Do not use full throttle and do not allow the engine to labour.

Make good use of all of the gears. Press the accelerator only up to 75 percent of full travel, in all gears and drive ranges.

Avoid hard braking during the first 400 km (and after new brake pads have been fitted).

Switching off the engine

If the engine temperature is very high, (for example, after driving in hilly areas) then allow the engine to idle for about 2 minutes before switching it off. This helps prevent heat accumulation.

When hot, the cooling fan may remain on for several minutes after you turn the ignition to OFF.

SAFETY

Before entering the vehicle

1. Check that the windows, mirrors and lights are clean and not obstructed.
2. Check that the tyres are correctly inflated.
3. Check that there are no fluid leaks (other than air conditioner drainage).

Before driving off

1. Be sure that all doors are secured.
2. Position your seat for comfortable and safe driving.
3. Adjust the rear vision mirrors.
4. FASTEN SEAT BELTS.
5. Check that the warning indicators light up when you turn the key to start the engine. Refer to Chapter 1.
6. Check the brake pedal and park brake lever.

   Automatic transmission: With the ignition ON, press the brake pedal before moving the transmission lever away from the P (park) position.

Parking

1. Apply the park brake.
2. Automatic transmission: Move the transmission lever to P.
   Manual transmission: place in FIRST or REVERSE gear.
3. Shut all windows.

WARNING:

Be careful where you park or drive. As with any vehicle, do not park or operate this vehicle in areas where combustible materials such as dry grass or leaves can come in contact with a hot exhaust system.

Never leave the engine running in an enclosed space, such as a closed garage or underground carpark.

AUTOMATIC TRANSMISSION

P (park) This stops the front wheels from turning and should be selected (and the park brake applied) when leaving the vehicle.

Never select P unless your vehicle is fully stopped.

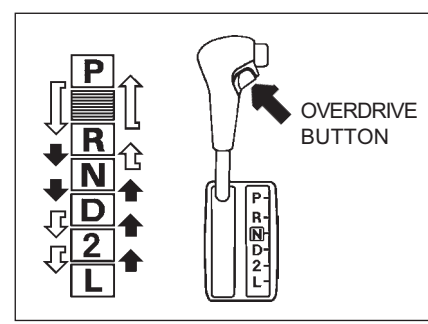
R (reverse) The reversing lights operate when R is selected with the ignition in the ON position. After reversing, make sure the vehicle has fully stopped before proceeding forward again.

Never select R unless your vehicle is fully stopped.

N (neutral) This puts the transmission out-of-gear. You can use this position to restart the engine while the vehicle is stopped or still moving.

D (drive) Overdrive selected: This is the most effective position for normal or freeway driving, using all of the gears.

The transmission chooses the appropriate gear based on the load and driving conditions, to give maximum fuel efficiency.



Overdrive not selected: This position allows the transmission to shift between first, second and third gears as conditions require. Overdrive is excluded.

Third gear gives responsive acceleration and deceleration, especially in hilly areas.

2 (second) In this position, the transmission will shift between first and second gear as required.

Use this position when going down a steep gradient to avoid excessive use of the brakes. Move the lever back into D to return to normal driving.

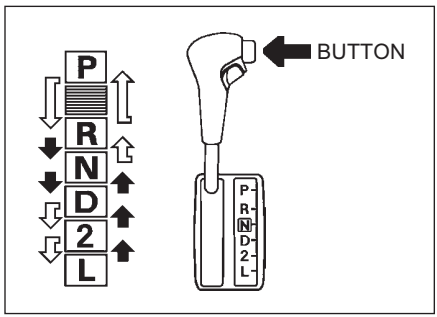
L (low) This is first gear only. Use this position when strong engine-braking is needed (for example, down a very steep gradient).

Remember to move the transmission lever back to D so that the transmission can up shift into higher gears.

AUTOMATIC TRANSMISSION cont.

To move the transmission lever into any position indicated by an open arrow, hold the button in.

You can move the lever to any position marked by a black arrow without holding the button.



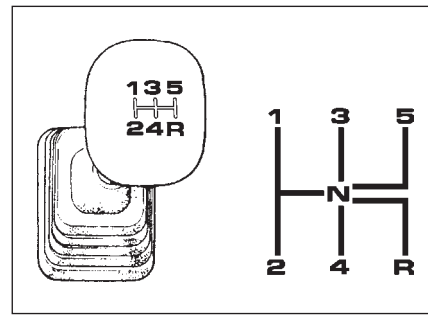
Notes

- Make sure the vehicle speed is sufficiently reduced before moving the transmission lever to a lower gear.
- Do not press the accelerator pedal and apply the brakes at the same time. This will overheat the transmission.
- Do not use the accelerator pedal to hold the vehicle on a slope. Use the brakes.
- Do not coast the vehicle in N - this reduces your control and disables engine-braking.
- Refer to Chapter 7 when checking the automatic transmission fluid level.
- The engine will not start unless the transmission lever is in P or N.
- A fault is indicated in the transmission when:
  - the vehicle does not accelerate as usual
  - the vehicle will not change to a lower gear when you accelerate hard
  - the O/D OFF light blinks when the ignition is on the ON position.

  If this occurs, manually shift through the gears (using the transmission lever) and consult a Holden Retailer as soon as possible.
- If the transmission lever is shifted to the next lower gear at a speed higher than the allowable speed of that gear, the transmission will not downshift until the vehicle speed slows to the maximum speed of the selected gear.

MANUAL TRANSMISSION

This system has five forward gears and one reverse gear. The shift pattern is displayed on the top of the gear shift lever.



Gear changing

Always press the clutch pedal fully before changing gears, to avoid clashing and possible chipping of the transmission gears. If the gear does not engage easily, then release and press the clutch pedal, or try moving to another gear before trying again.

Do not drive with your foot resting on the clutch pedal. This causes substantial clutch wear. When stopped on an incline do not hold the vehicle by slipping the clutch. Use the park brake or brake pedal.

Shift the gear lever with moderate effort, allowing time for the transmission synchronisers to work properly.

Shift into a lower gear before starting a steep downgrade to maintain safe speeds on and to reduce brake wear and overheating.

Do not over-speed the engine when shifting down to the next lowest gear.

Shift speeds

The chart shows the recommended change speeds for normal driving.

Using shift speeds in the Economy category can assist in maximising fuel economy.

Upshifting at higher road speeds may be necessary based on the driving conditions (ie. load, road gradient, during overtaking).

Gear change	Economy	Normal
1st–2nd	15 km/h	20 km/h
2nd–3rd	23 km/h	45 km/h
3rd–4th	34 km/h	60 km/h
4th–5th	41 km/h	68 km/h

WARNING:

Do not increase the engine speed into the red zone of the tachometer.

Reverse gear

Do not engage reverse gear unless the vehicle is completely stopped. The reversing lights illuminate when you select reverse gear while the ignition is ON.

You should pause for a few seconds between pressing the clutch pedal and moving the transmission lever into reverse gear. This allows the rotating components to stop and avoids gear clashing.

SNOW CHAINS AND DRIVING PRECAUTIONS

Snow chains

Standard snow chains can be used on your vehicle. However, although your all-wheel drive vehicle is designed to get better traction on slippery roads than a two-wheel drive vehicle, your all-wheel drive will not have as much traction in deep snow, mud or sand as a multipurpose four-wheel drive. You should not attempt to drive your vehicle in these situations.

Driving precautions

BRAKES

- Power assisted brakes, which are fitted to your vehicle, require vacuum from the engine when it is running. Never let the vehicle run down steep grades without the engine running. Never coast with the engine switched off.
- Driving through water may affect performance. Applying the brakes lightly can indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with an assured clear distance ahead until brake performance returns to normal.
- Brake pedal travel should not be obstructed by ill-fitting floor mats or any other material under the pedal which causes interference with normal pedal movement.
- Your seat should be positioned so that you can push the brake pedal satisfactorily under all braking conditions.

POWER STEERING

If the power steering is rendered ineffective, the vehicle can still be steered. However, much greater effort is then required for steering so it is recommended that you have the problem fixed promptly.

LOOSE ARTICLES

Do not leave loose articles or luggage in the passenger compartment. Whenever possible, loads stowed in the luggage compartment should be firmly secured. (Items could obstruct the driver's vision or be thrown in an accident, causing injury.)

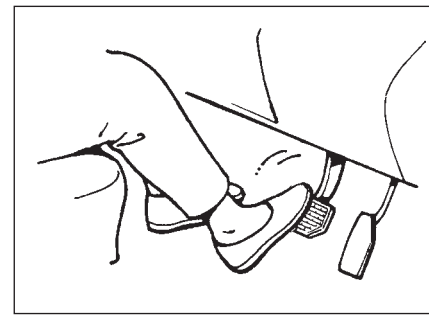
WARNING:

Gas cylinders can leak, creating a risk of fire or explosion. As a precaution, ensure adequate ventilation when carrying gas cylinders. They must be restrained from rolling around, and where possible, placed in the load area of the vehicle. It is recommended that if gas cylinders are frequently transported, a purpose-built carrying compartment be used. Transportation of gas cylinders is regulated by legislation in some states.

TYRE TRACTION

A decrease in driving, cornering and braking traction occurs when water, snow, ice, gravel or other materials are on the road surface. Driving practices and vehicle speed should be adjusted to the road conditions.

ABS (if fitted)



The distance needed to bring any vehicle to a halt increases with the speed of the vehicle.

The braking distance needed for example, at 60 km/h will be approximately four times greater than the braking distance needed at 30 km/h.

Start to brake and slow down gradually, when there is plenty of distance between your vehicle and the stopping point.

ABS (Anti-lock Brake System) helps maintain steering control on slippery surfaces or when braking hard.

WARNING:

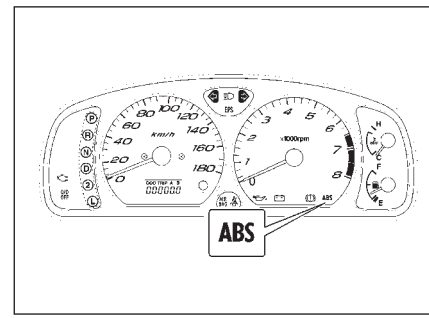
ABS will not work if the vehicle speed is under approximately 6 km/h.

The ABS works automatically, so you do not need to apply special braking techniques.

When the ABS activates, you might feel the brake pedal move slightly. This is normal.

When you turn the ignition switch to ON, the ABS light illuminates momentarily.

Refer to Chapter 1, for further information.



WARNING:

Do not let this safety feature tempt you into taking risks when driving. Traffic safety can only be achieved by adopting a responsible driving style.

CHAPTER 5

Fuel

Page

5-2 Fuel

5-4 Petrol

5-5 Emission Control

5-6 Reducing fuel consumption

FUEL

EXHAUST WARNING – CARBON MONOXIDE POISONING

- **Exhaust gases can produce carbon monoxide; a dangerous gas, which can cause unconsciousness and even death to both humans and animals.**
- **You could inhale the gases if the exhaust system on your vehicle is faulty.**
- **To protect against exhaust gases entering the vehicle, the exhaust system and the body should be inspected:**
  - **each time the vehicle is serviced,**
  - **whenever a change is noticed in the sound of the exhaust system,**
  - **whenever the exhaust system, underbody or rear of the vehicle is damaged.**
- **Take the vehicle to your Holden Retailer if you think your vehicle needs inspecting.**
- **Do not sit (or leave children or pets) in a parked vehicle for any extended period of time with the engine running.**
- **Do not run the engine in an enclosed area (such as the garage) any longer than is needed to move the vehicle.**
- **Driving with the tailgate / rear doors open is not recommended. If you must travel with any of these doors open, close all of the windows, set the heater controls to outside air (rather than recirculated) with air directed to the face and set the fan to the highest speed. Do not exceed 50 km/h.**

When the vehicle is driven for the first time, wax and oil on the exhaust system may evaporate producing smoke-like emissions which should not be inhaled. Allow the wax and oil to evaporate while the vehicle is in the open air.

LPG conversion

These vehicles have not been designed by Holden to be converted to LPG and Holden does not provide LPG conversion kits for these vehicles. Please refer to the warranty section in Chapter 9. Your warranty may be invalidated to the extent that any LPG alterations affect the specifications of your vehicle.

WARNING – USE OF FUEL CONTAINING ETHANOL

When purchasing such fuel, we recommend that your vehicle be operated on fuel containing no more than 10% ethanol. Purchasing your fuel from a reputable fuel retailer may reduce the risk of purchasing fuel with more than 10% ethanol or fuel which contains abnormal fuel properties.

Under no circumstances should you use fuel containing more than 10% ethanol. Use of such fuels may result in engine malfunction, starting and operating difficulties, and materials degradation. These adverse effects could result in permanent damage to your vehicle and personal injury. It is also important to note that when ethanol blends are used, fuel consumption can be expected to increase due to the lower energy content of ethanol.

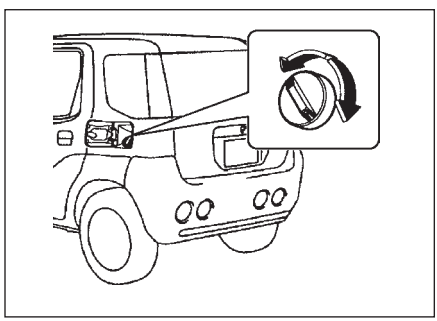
FUEL cont.

WARNING:

- **Petrol should be regarded as extremely flammable and highly explosive.**
- **Always turn off the engine and any mobile phones when refuelling.**
- **Do not smoke or allow open flames or sparks near the vehicle when refuelling.**
- **If petrol fumes are smelt while driving, the cause should be found and corrected without delay by a Holden Retailer.**

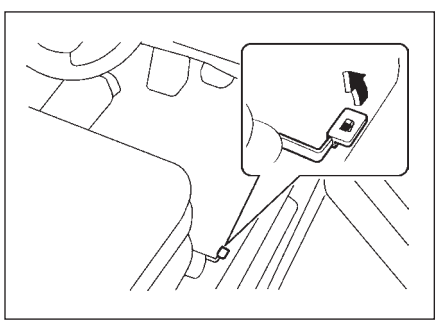
Petrol filler

The petrol filler is located behind a flap on the passenger side of the vehicle.



Petrol flap

Open the petrol flap by pulling up the lever located on the door side of the driver's seat.



Petrol cap

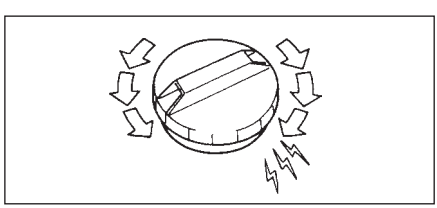
Remove the filler cap by turning it anticlockwise. Turn it slowly to allow any residual pressure to escape.

The fuel tank filler cap is a screw-on, ratcheting type.

To install the cap, turn it clockwise until you hear a ratcheting (clicking) sound. This sound indicates that the cap is on properly.

After refilling, tighten the cap firmly clockwise and close the petrol flap.

If you need to replace the petrol cap, use only a genuine Holden part or its equivalent.



WARNING:

The use of any fuel, other than the fuel specified, may cause serious damage to your vehicle and may void your warranty. Only clean fuel of good quality should be used.

PETROL

Filling the tank

Refer to Chapter 8 for your vehicle fuel tank capacity.

Over filling the petrol tank can affect the evaporative emission control system and can also result in a smell of petrol inside the vehicle. You should:

- fill the tank at the intermediate or fast fill rate.
- stop pumping fuel into the tank after the filler first clicks off (or petrol blows back). This allows room for the petrol to expand inside the tank.
- only trickle fill the petrol tank when you are to drive for more than 50 km immediately after the tank is filled. (This is not recommended on days over 30°C.)

Overflows

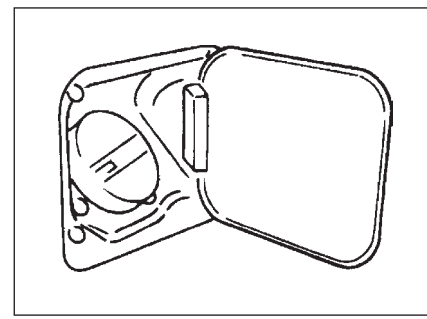
If the petrol splashes or overflows:

- wipe it off the vehicle immediately
- close the fuel opening
- spray or splash the area with water.

Petrol filler nozzle restrictor

Your vehicle has been designed to operate on UNLEADED petrol.

A petrol nozzle restrictor is fitted to ensure that only unleaded petrol is used. This allows the narrower, unleaded petrol nozzle to open the hinged flap and enter the filler. The leaded petrol nozzle is larger and cannot open the flap.



WARNING:

The use of any fuel other than the fuel specified, may cause serious damage to your vehicle and may void your warranty. Only clean fuel of good quality should be used.

R.O.N. (Research Octane Number)

Use clean, unleaded petrol. Your vehicle runs normally on 91 R.O.N, but can achieve improved engine performance when run on 95 R.O.N.

EMISSION CONTROL

Burnt fuel produces hydrocarbons (HC), oxides of nitrogen (NOx) and carbon monoxide (CO). When these are exposed to sunlight (under certain conditions), they contribute to photochemical smog. Also, concentrated carbon monoxide in the air is highly toxic.

Your vehicle is fitted with emission control systems. These are designed to reduce the amount of hydrocarbons, carbon monoxide, and oxides of nitrogen that are emitted into the atmosphere from the engine and fuel system.

Owner responsibility

Vehicles sold and serviced within Australia have been designed to comply with Australian Design Rules and state regulatory emission requirements.

The engine, engine control system or exhaust system of your vehicle must NOT be modified in any way.

Any change to the manufacturer's design may increase the emissions or otherwise defeat the intent of the regulations.

WARNING:

Any person who removes, modifies or hinders any part of the emission control system fitted to a vehicle will be contravening Australian Design Rules, refer A.D.R. 28/01 (External Noise for Motor Vehicles) and A.D.R. 79/00 (Emission Control for Light Vehicles). It is also illegal to drive a vehicle modified in this way.

Maintenance requirements

For continuing compliance with the regulations, you must ensure that your vehicle's emission control system is maintained at the frequency shown in the Maintenance schedule in Chapter 12.

It is recommended that the necessary servicing be performed by an authorised Holden Retailer who has the specialised servicing equipment and trained personnel available to ensure that the adjustments and services specified are carried out.

REDUCING FUEL CONSUMPTION

Engine

Maintain the engine in peak mechanical condition by having it serviced regularly in accordance with the Maintenance schedule in Chapter 12. This ensures that components are maintained or replaced enabling minimum fuel usage and peak engine performance.

Tyre pressure

Inadequate tyre pressure costs money in two ways: more fuel and increased tyre wear. Keep the tyres at the recommended pressures.

Wheel alignment

Maintain correct front wheel alignment. Incorrect alignment makes the front wheels drag and increases fuel consumption.

Warm ups and idling

Avoid long engine warm ups through idling. An engine reaches its efficient operating temperature most effectively when driving.

You should also avoid long engine idling. If you have to wait for more than a couple of minutes it is worthwhile to switch off the engine and conserve fuel. Three minutes of idling corresponds to approximately 1 km of driving.

Accelerating, driving and braking

Accelerate gently and avoid rapid starts, sudden bursts of speed full throttle acceleration and hard braking. Drive at steady speeds where possible (after run-in). Try to reach top gear as soon as possible, but do not force the engine to labour in top gear.

Riding the brake

Riding the brake (resting on the brake pedal with no intention to brake) can overheat the brakes. This can wear out the brake pads, damage the brakes and wastes fuel.

Air conditioning

Turn the air conditioning off when it is not required. This reduces fuel consumption.

Roof racks

Roof racks can increase fuel consumption by 1 litre per 100 km or more due to increased air resistance. Remove these when not in use.

Loading

Unnecessary weight increases fuel consumption, especially when accelerating. In city traffic, a load of 100 kg can increase fuel consumption by 0.5 litres per 100 km.

CHAPTER 6

Emergencies

Page

6-2 Accidents
- Being involved
- Being a witness
- Medical assistance

6-4 Flat tyre

6-8 Towing your vehicle

6-9 Engine overheating

6-11 Flat battery

6-13 Airbags

6-17 Bulb replacement

6-22 Fuses

Your new vehicle is covered for 3 years by 24 hour Roadside Assistance, refer to Chapter 9.

ACCIDENTS

All motorists are advised to learn what to do at the scene of an accident, particularly where persons are injured. Injured people can choke to death if their air passages are not cleared. They can bleed to death unless the bleeding is stopped. They may require mouth-to mouth resuscitation or may have to be moved, even though badly injured. It is important that you understand how to avoid further damaging an injured neck or back or other broken limbs. In all cases, ensure safety for the rescuers, victims and bystanders. The following notes may help.

Part 1. Accident - being involved.

If you are involved in an accident you are advised to do as follows:

- Stop immediately and remember to turn off the engine and apply the park brake.
- Remember that time is vital. Remain calm and alert. Think quickly and clearly.
- Give all possible assistance to all injured persons (refer to Part 3. Medical assistance).
- Send for police and ambulance if anyone has been injured. Give information as accurately as possible. Give the exact location, the number of injured people and a brief report on the overall situation.
- Warn all other traffic approaching the scene. Turn off all ignition switches. Stop any smoking or mobile phone use near spilt petrol. In darkness, try and light up the area to warn others - use a torch, hazard lights, headlights etc. Do not use flammable items.
- Clear the road of accident debris.
- Exchange your name, address, vehicle registration number and the vehicle owner's name and address with the other parties involved in the accident.

If damage to property only has occurred, report the facts to the owner of the damaged property, to his or her representative, to any police present at the scene or to the nearest Police Station.

Try to note all important facts because such details may be important if needed later.

Part 2. Accident - being a witness

If you witness a road accident or it becomes your task to stop and help at the scene of an accident:

- Keep in mind that an observant witness can prove most helpful. Some day you yourself might be very glad of help from a witness.
- DO NOT stop at the scene of an accident just to be a spectator.
- Where other people are already in attendance and giving assistance, you should stop only if you can contribute assistance.
- Give what assistance you can to any injured persons. (Refer to Part 3. Medical assistance).

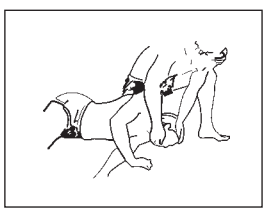
ACCIDENTS

Part 3. Medical assistance

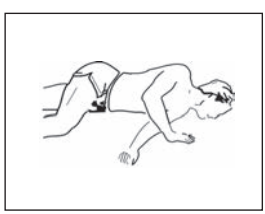
This information is basic first aid information which is intended as a guide only and may not be applicable in all situations. You should always defer to a trained medical officer or other person with first aid knowledge. Protective equipment, such as rubber gloves are recommended.

Keep calm and think clearly. Your experience may not be much but do your best.

- Look after the unconscious person first. Check airway, breathing and circulation. If no breathing, then check if air passages are clear, i.e. nose and mouth. Use your fingers to clear air passages if necessary. If the air way is clear then mouth-to-mouth resuscitation may be needed at once.
- You must be very careful when moving an injured person. It is best not to move at all, except if in danger, as serious and permanent damage can be done to an injured neck or back if not supported during movement. AVOID BENDING OR TWISTING A NECK OR BACK. KEEP THEM STRAIGHT. All injured limbs require support when an injured person has to be moved.
- Unconscious people can choke. To help avoid this:
  - carefully turn the person to one side
  - tilt their head back slightly
  - wipe out the mouth with your finger to remove blood, vomit, broken teeth or dentures.



- Provided it is not dangerous to do so due to injuries, an unconscious person will do best in the following position:
  - lay the person on one side
  - bend the uppermost knee until the thigh is at a right angle to the body
  - bend the uppermost shoulder and elbow so that the hand lies near the face
  - gently pull the underneath arm so that it rests straight on the ground free of any body weight.



- Try to stop bleeding by applying direct pressure, using your hand, or by pressing torn flesh together. Use any clean cloth available. Fold cloths to make pads. If necessary press one pad on top of another. Keep pressure around edges of a wound BUT NEVER USE A TOURNIQUET.
- Shock may be treated by reassurance, relieving pain, controlling any bleeding and keeping the injured person warm but not hot. It is best not to give any fluids and NEVER ALCOHOL.
- If the injured person is in danger and has to be moved, try and have three or four people help and concentrate on not bending or twisting the neck, spine and injured limbs. Keeping the neck and spine straight is most important.

FLAT TYRE

If using a jack other than the one supplied with the vehicle, be sure to use correct lifting positions. Refer to step 10.

WARNING:

- **Use the jack only for lifting the vehicle when changing wheels.**
- **Never get beneath the vehicle when it is only supported by the jack.**
- **Do not start or run the engine while the vehicle is only supported by the jack.**
- **All passengers should be out of the vehicle when it is being jacked.**
- **Use the jack only at the designated lifting points. Use in other locations could damage the vehicle.**
- **The vehicle should only be jacked on hard, level surfaces.**

WARNING: TEMPORARY SPARE WHEEL

Your vehicle is fitted with a temporary spare wheel. The temporary spare wheel is for emergency spare use only; drive carefully and do not exceed 80 km/h when the wheel is fitted on the vehicle. Your vehicle's handling capabilities will be reduced when the temporary spare wheel is fitted. Only one temporary spare can be used on the vehicle at the one time. The flat tyre should be repaired and refitted to the vehicle as soon as possible.

Your temporary spare must have a maximum load rating of not less than 412 kg, or a load index of 77, and a speed category symbol of not less than M.

Temporary spare wheel and tyre specification:

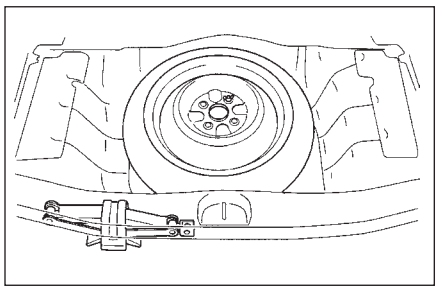
RIM SIZE	TYRE SIZE	TYRE INFLATION PRESSURE
15 X 4 1/2 J	165 / 65R15 81M	Cold Pressure: 200 kPa (29 psi)

Changing the wheel

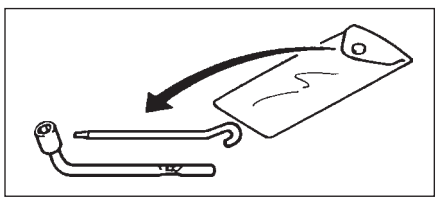
1. Park on a level surface with the wheels pointing straight ahead.
2. Firmly set the park brake.
3. Remove the ignition key and lock the steering.

FLAT TYRE cont.

4. Place the transmission in REVERSE gear for manual, PARK for automatic.
5. Turn the hazard lights on if your vehicle is near traffic.

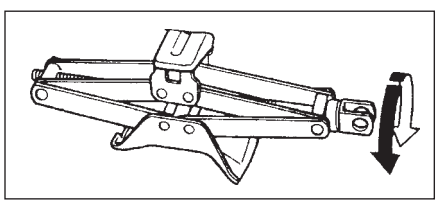


6. Remove the jack and tools (stored under the luggage compartment floor).



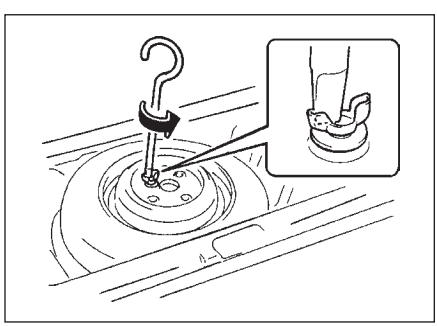
To remove the jack, turn its shaft anticlockwise and pull the jack out of the storage bracket.

To stow the jack, fit it into the storage bracket and turn the shaft clockwise until the jack is securely held in place.

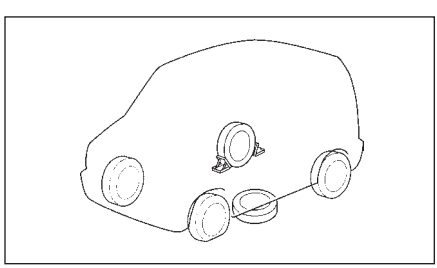


7. Remove the spare wheel.

If you have difficulty loosening the wing bolt securing the spare tyre, use the jack handle shaft as illustrated.

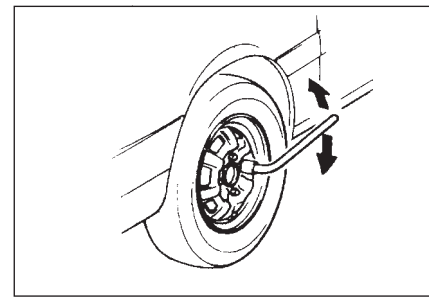


8. Chock the wheel diagonally opposite the flat tyre by placing wedges (any available blocks of wood or rocks) behind and in front of it.



FLAT TYRE cont.

9. Use the wheel nut wrench to loosen (but not remove) the wheel nuts.

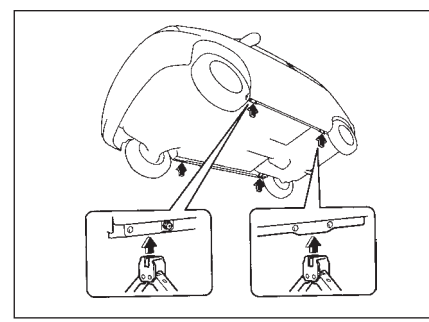


WARNING:

Do not jack the vehicle up on an inclined surface.

Do not allow passengers to remain in the vehicle.

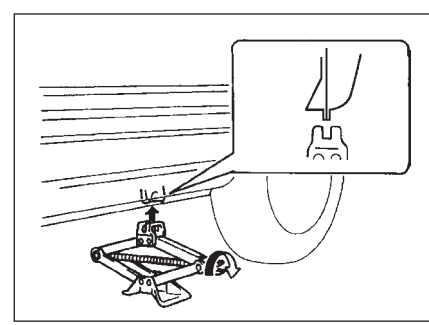
Reinforced sections at the front and rear of the vehicle underbody indicate the points to place the jack.



10. Position the jack in the reinforced jacking point that is nearest the flat tyre.

Ensure the jack is sitting on a firm, stable and preferably dry surface.

11. Hold the jack vertically and turn the jack handle clockwise until the jack head recess fits the jacking point.



WARNING:

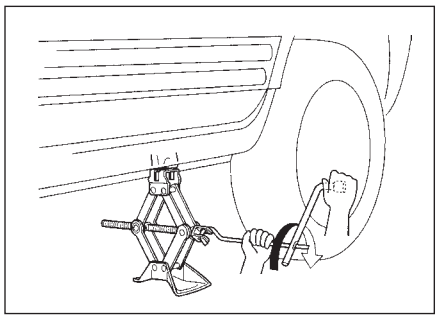
Failure to position the jack as described could result in serious personal injury or vehicle damage caused by the vehicle slipping off the jack.

FLAT TYRE cont.

12. Continue to raise the jack slowly and smoothly until the tyre clears the ground.

Allow enough clearance for the spare wheel and tyre. This needs slightly more clearance than the flat tyre because it is fully inflated.

Do not raise the vehicle higher than necessary.

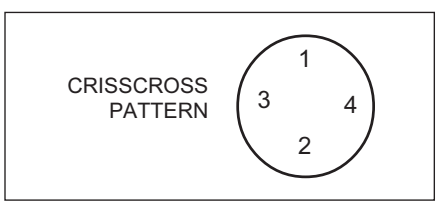


13. Remove the wheel nuts and place them together in a dry place. Avoid getting dirt in the nut threads.

14. Remove the wheel from the vehicle and change it over with the spare.

15. Install the wheel nuts by hand.

16. With the wheel wrench, lightly tighten the nuts in a crisscross sequence, as shown.



17. Lower the vehicle completely and remove the jack.

18. Fully tighten the wheel nuts, again using a crisscross sequence.

19. Stow away the wheel, tools, and jack.

20. Have the flat tyre repaired as soon as possible.

WARNING:

As soon as possible after changing a wheel, you should have the wheel nuts tightened with a torque wrench to between 100 and 125 Nm and have the wheel balanced on the vehicle.

Wheel nuts should be tightened evenly to the correct torque in the sequence shown, as wheel nuts which have not been tightened properly could eventually allow the wheel to come off while the vehicle is moving.

TOWING YOUR VEHICLE

Precautions

Proper lifting or towing equipment is necessary to prevent vehicle damage during any towing operation of the vehicle. State and local laws must be followed.

You should drive slowly, avoiding jerky movements, during towing operations.

Remember that power assist for brakes is not available when the engine is off. You need to use more effort to brake and steer.

Towing your vehicle

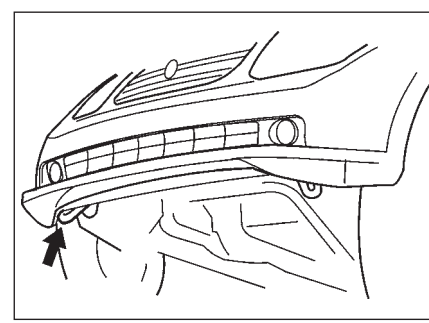
Under normal circumstances, your vehicle should be towed as follows:

- With all four wheels on a flat-bed truck, or
- With the front or rear wheels lifted and a dolly under the other wheels.

Towing on all wheels

In an emergency, your vehicle may be towed on all four wheels in the following manner:

- Locate the towing eye at the front of the vehicle.
- Attach a tow rope to the eye. Do not attach a tow rope to the bumpers, brackets or any other part of the vehicle.
- Place the transmission in the neutral position.
- Release the park brake.



- Turn the ignition switch to ON. This frees the steering lock and allows operation of the windscreen wipers, horn and turn signals.
- Close the windows and move the ventilation control to the recirculate position to prevent the entry of exhaust fumes from the towing vehicle.

Automatic transmission

If your vehicle has automatic transmission:

- you should only tow it facing forwards
- must not tow it for more than 100 km
- must not tow it over 80 km/h.

If the transmission is defective, or the above speed or distance is to be exceeded, you must transport the vehicle with all four wheels supported. For instance, on a flat bed truck.

ENGINE OVERHEATING

Engine overheating can be indicated by:
- the temperature gauge needle moving to the red zone
- steam escaping from under the bonnet
- a loss of power
- a loud knocking or pinging noise.

WARNING:

Immediate action is required if the engine overheats.

Continued driving EVEN FOR A SHORT TIME could cause a fire or vehicle damage.

Pull out of traffic as soon as possible. Stop the vehicle but leave the engine idling and the park brake applied. Get out and check that the cooling fan is working.

WARNING:

Do not open the bonnet if you can see or hear steam or coolant escaping from the engine compartment. Scalding fluid and steam can be blown out under pressure and cause serious burns. Wait until no steam or coolant can be seen or heard before opening the bonnet.

If the fan is working and the temperature gauge needle has not returned to its normal position within a few minutes, then stop the engine and remove the ignition key.

From a safe distance, look for leaks in the following places:
- radiator hoses and connections
- heater hoses and connections
- radiator
- water pump.

WARNING:

If you find a leak, or another problem that may have caused the engine to overheat, you must ensure that this is repaired before you run the engine again.

Take care when checking all of these areas as they will probably still be hot.

If you do not find anything wrong, then check the engine coolant level in the reservoir. This is outlined in the following section.

WARNING:

Do not remove the cooling system cap if the engine and radiator are still hot.

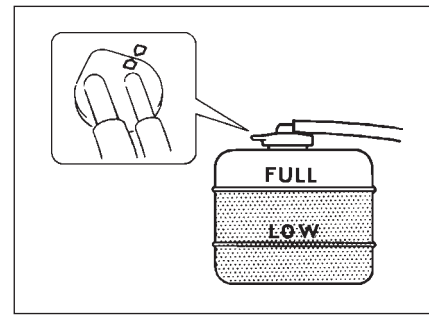
ENGINE OVERHEATING cont.

Check the coolant level

Locate the coolant reservoir in front of the battery. It has a green cap. Check the level by looking at the side of the reservoir.

The coolant level should be above the LOW mark. If the level is below the LOW mark, you need to add more coolant.

With this type of sealed, pressurised cooling system there should be very little loss of coolant. If the reservoir is low, a leak is usually indicated. Refer to a Holden Retailer as soon as possible to fix the leak.



Adding coolant

- Cover the reservoir cap with a thick cloth.
- Slowly remove the cap allowing any residual pressure to escape.
- With the engine idling, add a coolant mixture meeting the correct specifications (or else use clean water) to the reservoir until the level reaches the FULL mark. Do not over fill. Refer to Chapter 8, Specifications for coolant mixing details.
- Install the cap and leave the engine idling for a few minutes.

If the temperature gauge no longer signals an overheat condition, you can resume driving at a reduced speed. Return to normal driving after ten minutes if the temperature gauge does not again show an overheat condition.

If you diluted the coolant by using clean water, consult a Holden Retailer to correct the coolant with a mixture meeting the correct specifications.

If overheating occurs again, have the vehicle inspected by a Holden Retailer as soon as possible.

Demanding conditions

The engine may temporarily operate at high temperatures during more demanding operating conditions, especially on very hot days. These conditions include:

- climbing a long hill
- stopping immediately after high speed driving
- idling for long periods in traffic
- towing a heavily laden trailer.

You should avoid operating your vehicle for prolonged periods in any of the above circumstances if the temperature gauge indicates high engine coolant temperature.

Refer to Chapter 7 for maintenance instructions to help protect your cooling system from overheating.

FLAT BATTERY

If your vehicle will not start due to a flat battery, you might be able to start it by using a battery in another vehicle; a procedure called jump starting.

WARNING:

Do not attempt to push start or tow start this vehicle. If raw fuel reaches the catalytic converter and ignites, the converter could be damaged or destroyed by backfire.

Read the following procedure in full before attempting to jump start your vehicle. If you are unsure about this procedure, leave the starting to a competent mechanic.

If your battery discharges repeatedly for no apparent reason, have it inspected by an authorised Holden Retailer.

WARNING:

- **Battery action generates hydrogen gas which is flammable and explosive so do not expose the battery to open flames or sparks.**
- **Do not allow smoking near a battery.**
- **Wear eye protection such as industrial safety glasses and avoid leaning over the battery whenever possible.**
- **Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately. In case of eye contact, get medical help.**
- **Battery acid damages paint and fabrics. To minimise damage, wash any spills immediately.**
- **Be sure that any refillable batteries are properly filled with fluid.**
- **Remove rings, metal watch bands and other metal jewellery before working around a battery.**
- **If jump starting, carefully follow each step in the procedure.**
- **Never use a quick charger to start your engine.**
- **Do not stand near the battery during jump starting.**

FLAT BATTERY cont.

Jump starting preparation

Your vehicle battery has a negative earth and a 12 volt rating. Ensure that the battery in the assisting vehicle has a negative earth and the same voltage rating.

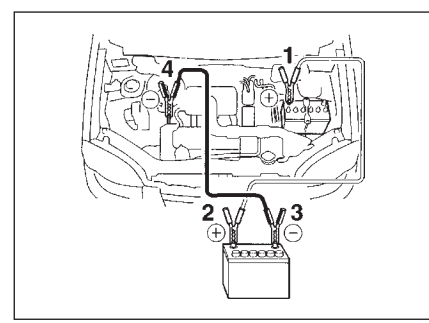
Ensure that the capacity of the assisting battery is not substantially lower than that of the discharged battery. Check the specifications in the owner manual of the assisting vehicle if necessary. Serious injury or damage can result with incompatible batteries.

- Position the two vehicles so that the batteries are close, and apply the brakes.
- Ensure the vehicles are not touching.
- Select P (park) for automatic vehicles.
- Select neutral for manual vehicles.
- Turn the ignition to OFF.
- Turn off all lights and accessories in both vehicles, except the hazard warning flasher or any lights needed for the work area.

Jump starting

When making connections, do not allow the clamps to inadvertently touch each other. Ensure that they are not on or near pulleys, fans or other points that move when the engine is started.

1. Attach one end of the first jumper cable to the positive terminal of the flat battery (indicated by '+' or 'P').
2. Connect the other end of this cable to the positive terminal of the assisting battery.
3. Attach one end of the second jumper cable to the negative terminal ('—' or 'N') of the assisting battery.
4. Connect the other end to a solid, metallic position on the disabled engine, away from the flat battery.



Do not connect this cable clamp directly to the negative post of the flat battery.

5. Start the assisting engine and run it at high idle.
6. Attempt to start the disabled engine. Try for a maximum of 15 seconds with intervals of 1 minute between attempts.
7. After starting, leave the leads connected and allow both engines to idle for a few minutes.
8. Leave the engines running and remove the jumper cables by reversing the above sequence.

While removing each clamp, take care that it does not touch any other metal or moving parts, especially while the other end is still attached.

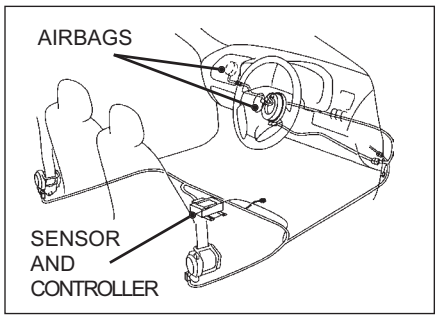
AIRBAGS

Airbag system

Your vehicle is fitted with a supplemental restraint system consisting of:

- a driver airbag
- a front passenger airbag
- crash sensors
- an electronic controller
- airbag inflators
- seat belt pretensioners.

These are in addition to a lap-sash belt for each front seat.



AIR BAG light

The AIR BAG light on the instrument panel flashes on and off six times when the ignition is switched to ON. This indicates that the airbag system is operational.

If the light:

- does not illuminate when the ignition is switched to ON
- stays on for more than 10 seconds when the ignition is switched to ON, or
- comes on when driving,

you should contact a Holden Retailer as soon as possible. The system may not function correctly, especially in an accident.

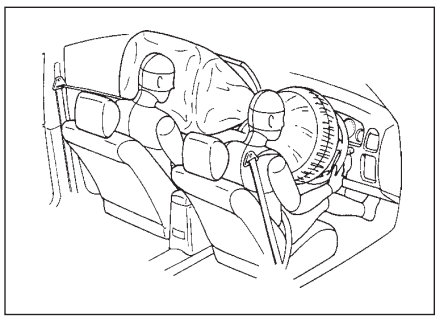
Airbag fitment

Airbags are fitted for the driver and front passenger. These are identified by the words AIR BAG on the steering wheel and above the glovebox.

The airbags assist, but do not replace the seat belts.

By law, seat belts must be worn by the driver and all passengers whenever the vehicle is moving.

If you are too close to an inflating airbag it could seriously injure you. Seat belts help keep you in position for airbag inflation in a crash.



AIRBAGS cont.

Seat adjustment

The airbags inflate with great force. It is important that you correctly adjust the seats to ensure that you are not too close to the airbag.

Adjust the seats to suit the occupant's height. The driver should be able to sit upright with slightly bent arms when holding the upper area of the steering wheel.

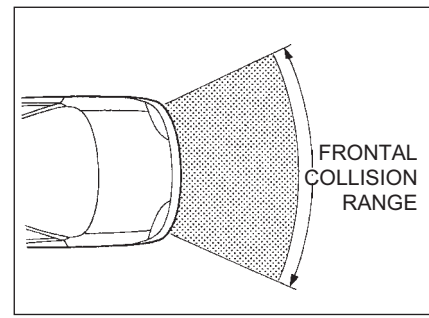
The front passenger seat should be as far back as possible, with the back rest upright.

The airbags are triggered simultaneously and operate as a pair.

Airbag deployment

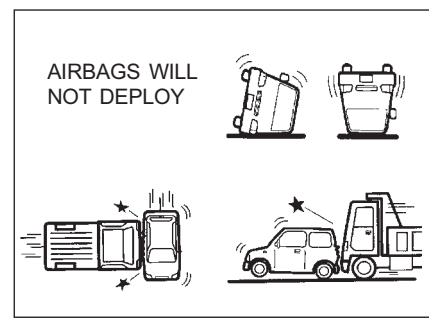
If your vehicle is involved in a moderate or severe front end collision, the airbags inflate and assist the seat belts to restrain forward body movement.
When the airbags are deployed, you may hear an operating noise and notice a small amount of smoke-like gas that is released. The gas is harmless and does not indicate a malfunction or fire.

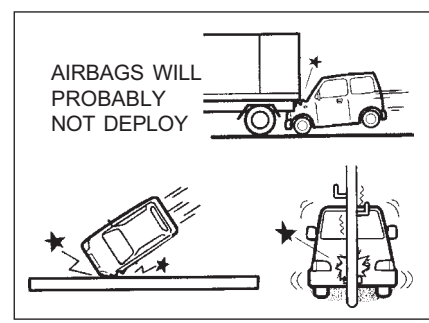
The airbags will then deflate; the whole process only taking a moment.



WARNING:

The airbags are not designed to deploy if the vehicle is hit from the rear or side or if it overturns.





AIRBAGS cont.

How the system works

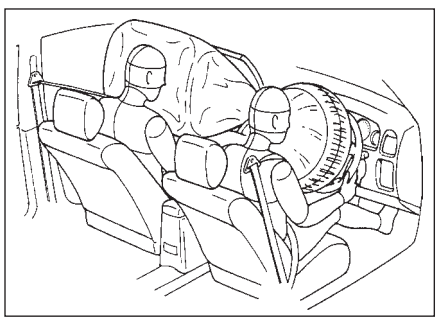
In a front-on collision, the crash sensors detect rapid deceleration and send a signal to the controller.

When this signal represents a moderate or severe front-on crash, it triggers the inflators.

The inflators instantly fill the airbags with nitrogen or argon gas to provide a cushion for your head and upper body. They inflate and deflate so quickly that you may not even realise that they have activated.

The airbags neither hinder your view nor make it harder to exit the vehicle.

The quick and forceful inflation reduces the chance of serious or fatal injuries, however, possible irritation can occur to bare skin (such as the face).



Be aware that some airbag components may be hot for a while after inflation.

Do not attach any objects to, or place any objects over, the steering wheel or dashboard. Objects can interfere with airbag operation or may be propelled by the airbags in the event of a crash. Either of these conditions may cause severe injury.

Note that even though your vehicle may be moderately damaged in a front-on collision, the collision may not have been severe enough to trigger the airbags to inflate.

If your vehicle sustains any front-end damage, have the airbag system inspected by an authorised Holden Retailer to ensure it is in proper working order.

Bull bars

Fitting a bull bar, nudge bar or making other modifications to the front of the vehicle can change the impact speed that would normally trigger airbag deployment.

Bull bars are only recommended for country and outback areas where additional protection from straying animals is required.

Defensive driving and limiting driving speed based on the road conditions is the best approach, particularly where road side signs indicate wildlife is abundant.

AIRBAGS cont.

After deployment

After use the whole airbag system will have to be replaced. It is recommended that the work be done by a Holden Retailer.

The system should also be inspected by a Holden Retailer if the steering wheel or dashboard area is scratched, cracked or damaged. Remember that the horn pad must not be covered with adhesive or any other material, as this can hinder airbag operation.

As a passenger's airbag is fitted, the dashboard area must be kept clear, with nothing around this area or hanging from the sun visor.

The electronics controlling the airbag system and belt pretensioners are located in the centre console. To prevent malfunctions, do not place magnetic objects in the immediate vicinity of the console.

Extensive design and testing has gone into the airbag system. It is extremely reliable and has little chance of accidental inflation. It should however, be treated with respect.

Any careless or unskilled interference with the system can lead to its failure or to accidental inflation. Any work to the electrical system, steering column, dashboard area, steering wheel or airbag system must be carried out by an authorised Holden Retailer.

Passenger airbag and child restraints

WARNING:

Never install a rear-facing child restraint in the front seat of a vehicle with a passenger's airbag. The child could be seriously injured if the airbag inflates as the child's head would be very close to the inflating airbag.

Where legally allowable, you may install a forward-facing child restraint in the front seat, but ALWAYS move the passenger seat as far back as it will go.

It is always better to install a child restraint in the rear seat.

Do not touch any airbag system components or wires.

The wires can be identified by yellow tape wrapping or yellow tubing and the connectors are also yellow.

Scrapping a vehicle that has an uninflated airbag can be hazardous. Ask your Holden Retailer for assistance.

WARNING – EXTREME HAZARD:

Do not use a rearward facing child restraint on a seat protected by an airbag in front of it. The child could be seriously injured if the airbag inflates, as the child's head would be very close to the inflating airbag.

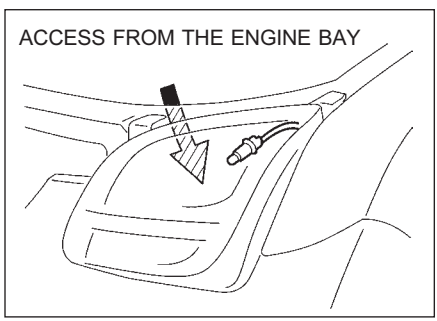
BULB REPLACEMENT

General information

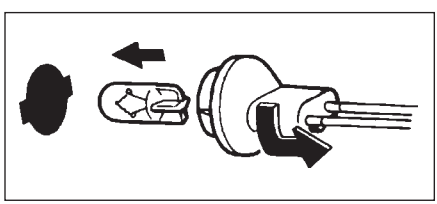
- When replacing a bulb, turn off the related switch and be aware that the bulb may be hot (especially if it is a halogen bulb).
- Do not touch bulbs with bare hands. Greasy fingers cause stains which evaporate and result in a dull light. Grease spots on halogen bulbs soon lead to bulb failure.
- Stained bulbs can be cleaned with alcohol or white spirits and tissue paper or a clean, non-fuzzy cloth.
- When replacing bulbs do not exceed the wattage rating of the defective bulb.
- Detailed procedures for headlight aiming are in the service manual for your vehicle. However, because headlight aiming is a safety issue, we recommend that you have a Holden Retailer make this adjustment.
- If you need to replace a bulb frequently, arrange for a Holden Retailer to inspect the circuit and repair the cause.
- Do not over-tighten lens retaining screws or damage to the lens can occur.

Front parking lights

1. Open the bonnet and engage the support rod.
2. Locate the parking bulb holder.
3. Remove the bulb holder from the light assembly (turn the holder anticlockwise and pull it out).
4. Remove the bulb from the holder by gently pulling it.



5. Insert the new bulb firmly.
6. Fit the holder back into the light assembly (push in and turn clockwise).



Fog lights

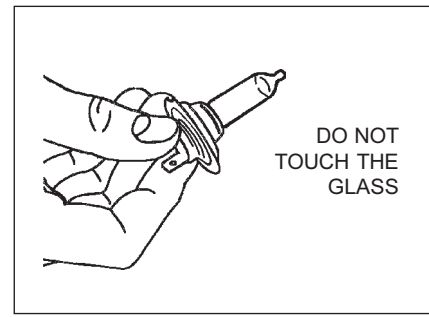
This task should be carried out by your Holden Retailer.

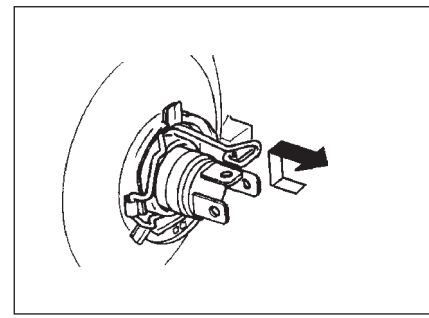
BULB REPLACEMENT cont.

Headlights

When you unwrap the replacement bulb, make sure that you do not touch the glass.

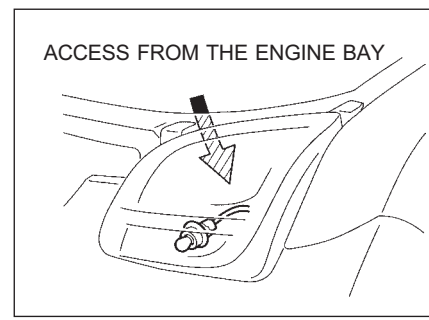
1. Open the bonnet and engage the support rod.
2. Locate the headlight bulb holder at the back of the light assembly.
3. Detach the wiring connector.
4. Remove the sealing rubber.
5. Unhook the retaining spring (push it forward and up).
6. Remove the bulb from bulb holder.
7. Insert the new bulb into the holder without touching the glass.
8. Ensure that the three lugs on the holder engage in the light assembly recesses.
9. Install the retaining spring, sealing rubber and wiring connector.





Front turn signal lights

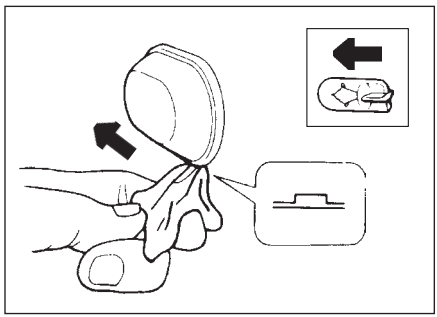
1. Open the bonnet and engage the support.
2. Locate the turn signal bulb holder.
3. Remove the bulb holder from the light assembly (turn the holder anticlockwise and pull it out).
4. Remove the bulb from the holder (press it into the holder slightly, turn it anticlockwise and remove it).
5. Insert the new bulb and engage it in the holder by turning it clockwise.
6. Fit the holder back into the light assembly (push in and turn clockwise).



BULB REPLACEMENT cont.

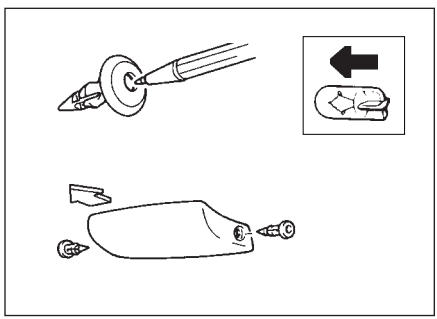
Side turn signal lights

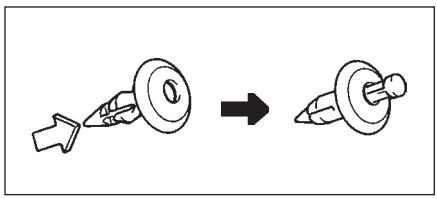
1. Locate the turn signal bulb lens.
2. Remove the lens by carefully levering from the recess.
3. Remove the bulb from the holder by gently pulling it.
4. Insert the new bulb firmly.
5. Install the lens.



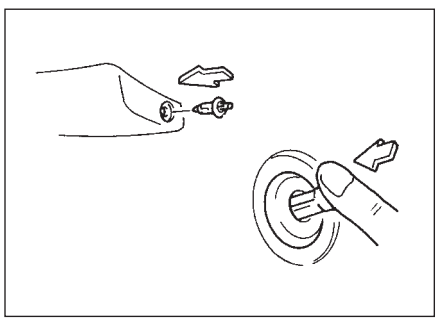
High mounted stop light

1. Locate the two retainers on either side of the light assembly.
2. Depress the pin in the centre of each retainer.
3. Carefully prise each retainer out from the assembly.
4. Remove the assembly cover.
5. Remove the holder that has the faulty bulb by turning it anticlockwise.
5. Remove the bulb from the holder by gently pulling it.
6. Insert the new bulb firmly.
7. Push each retainer pin back out of the retainer approximately half way.
8. Place the assembly cover in position.



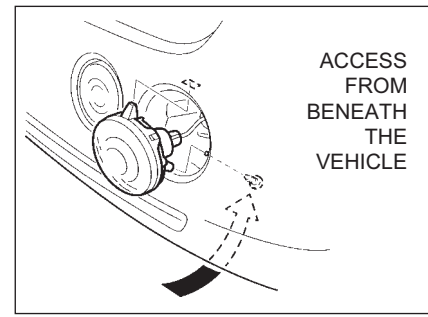


9. Fit the retainers into the assembly.
10. Push the pins in level with the top of the retainer.



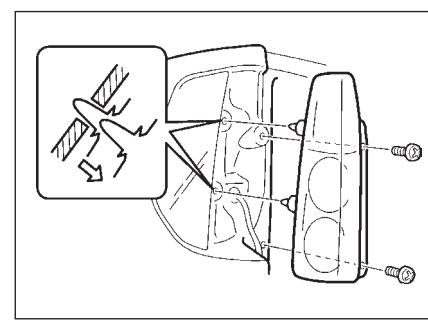
BULB REPLACEMENT cont.

Stop / tail lights



1. Locate and remove the assembly retaining screw on the back of the assembly.
2. Push the assembly out to the rear of the vehicle.
3. Remove the light assembly from the bulb holder (turn the holder anticlockwise and pull it out).
4. Remove the bulb from the holder (press the bulb into the holder slightly and turn it anticlockwise).
5. Insert the new bulb (twin filament) and engage it in the holder by turning it clockwise.
6. Fit the light assembly back onto the holder (push in and turn clockwise).
7. Install the assembly.
8. Install the retaining screw.

Rear combination lights



The bulb sequence from top to bottom is:

- turn signal
- reversing light.

1. Locate and remove the lens retaining screws.
2. Carefully remove the lens.
3. Remove the faulty bulb and replace it with an equivalent bulb.
4. Place the lens in position and install the retaining screws.

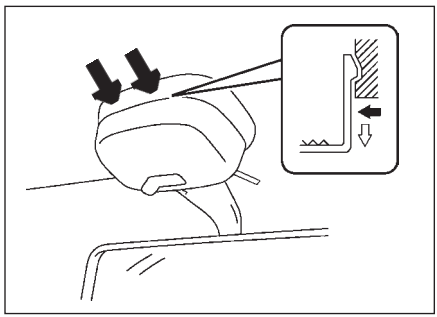
Do not over-tighten the screws or damage to the lens can occur.

BULB REPLACEMENT cont.

Front interior light

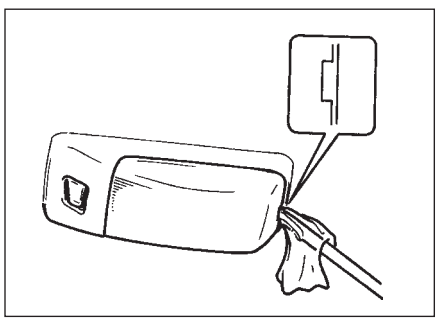
Before removing the bulb, close the doors so that the light is not 'live'.

1. Remove the lens (press the front of the lens and pull down).
2. Remove the bulb by gently pulling it out.
3. Install the new bulb ensuring that the contact springs hold the bulb securely.
4. Install the lens (gently push it into place).



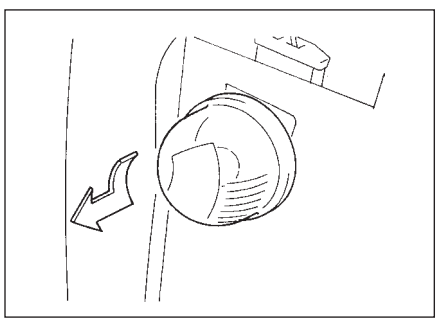
Rear interior light

1. Remove the lens (carefully lever with a flat bladed screwdriver as indicated).
2. Pull the faulty bulb out.
3. Install the new bulb ensuring that the contact springs hold the bulb securely.
4. Install the lens (gently push it into place).



Number plate light

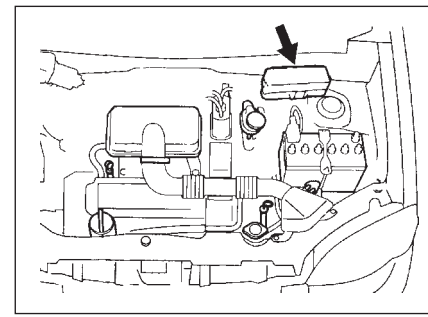
1. Insert a screwdriver vertically into the underside of the light and press to disengage the lens.
2. Turn the lens anticlockwise and manoeuvre the lens out.
3. Remove the bulb from the holder.
4. Insert a new bulb.
5. Install the lens by gently pushing it in place.



FUSES

Location

There are two fuse boxes. One is located in the engine compartment (behind the battery) and the second is under the dashboard (behind the driver's side cup holder).



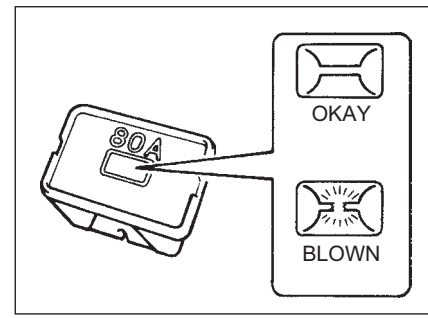
Types

Your vehicle has three types of fuses: main, primary and individual circuit.

MAIN FUSE
The main fuse takes current directly from the battery.

If the main fuse blows, no electrical component functions.

Use only a genuine replacement fuse (not a substitute material) of the correct rating.



PRIMARY FUSE
Primary fuses are fitted between the main fuse and the individual fuses. These protect electrical load groups.

If a primary fuse blows, the components in the corresponding load group do not function.

Use only a genuine replacement fuse (not a substitute material) of the correct rating.

Load groups are:

- Cigarette lighter, turn signals, reverse, wiper / washers, ABS, heater, demister, airbags, ignition coil, gauges, windows.
- Door locks, tail lights, stop lights, radio, interior lights, hazard lights, horn, power steering.
- ABS system.
- Radiator fan.

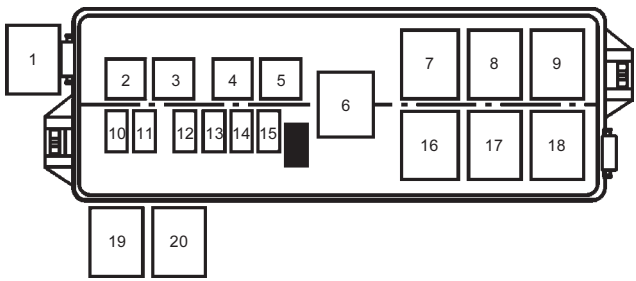
INDIVIDUAL CIRCUIT FUSE
Individual fuses protect the individual electrical circuits.

WARNING:

If, after replacement, a main or primary fuse blows, have your vehicle inspected by a Holden Retailer. Do not use a substitute for a fuse (such as wire or foil) even as a temporary repair. This can cause extensive damage and even fire.

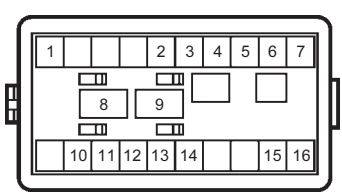
FUSES cont.

Engine compartment fuse box



1.	Fog light relay	
2.	Primary fuse: ignition switch	60 A
3.	Primary fuse: circuit fuse box	60 A
4.	ABS control module fuse (if equipped)	50 A
5.	Radiator fan #1 fuse	30 A
6.	Main fuse: battery, generator, all circuits	80 A
7.	Automatic transmission relay (if equipped)	
8.	A/C compressor relay	
9.	Radiator fan #1 relay	
10.	Headlight: right fuse	15 A
11.	Headlight: left and instrument panel fuse	15 A
12.	Fog light fuse	20 A
13.	Automatic transmission fuse	15 A
14.	Main relay fuse	15 A
15.	Air conditioning fuse	20 A
16.	Fuel pump relay	
17.	A/C condenser fan relay	
18.	Main relay	
19.	Radiator fan #2 relay	
20.	Radiator fan #3 relay	

Under dashboard fuse box



1.	Cig. lighter, radio, mirrors	15 A	9.	Power steering	30 A
2.	Instrument panel	10 A	10.	Horn, hazard switch	15 A
3.	ABS	10 A	11.	Radio / interior lights	15 A
4.	Wipers / washers	15 A	12.	Tail lights	10 A
5.	A/C, fan, reverse lights	10 A	13.	Stop lights	10 A
6.	Ignition	15 A	14.	Door locks	20 A
7.	Airbag system	15 A	15.	Rear demister	15 A
8.	Power windows	30 A	16.	Heater	25 A

FUSES cont.

It is recommended that you carry a complete spare set of fuses. Provision is made in the fuse box for storing these. There is also a special fuse tool in the fuse box.

Before replacing a fuse, turn the respective switches off and remove the ignition key.

A blown fuse is identified by its melted wire. Only fit a new fuse after the cause of the trouble has been located and eliminated.

Only use a fuse of the specified rating for each circuit. The rating is on the fuses.

Colour rating

Violet	3 A
Pink	4 A
Beige	5 A
Brown	7.5 A
Red	10 A
Blue	15 A
Yellow	20 A
White	25 A
Green	30 A
Orange	40 A

CHAPTER 7

Weekly checks

Page

7-2 Owner / operator checks
7-3 Engine oil level
7-4 Engine coolant level
7-5 Washer fluid level and battery
7-6 Brake fluid level
7-7 Auto transmission fluid level
7-8 Tyres

OWNER / OPERATOR CHECKS

As well as ensuring regular servicing (refer to Chapter 12) there are simple weekly checks that the owner / operator is recommended to make. These are shown in the list below and / or on the following pages.

WARNING:
Electronic ignition systems have a high ignition power. Do not touch the ignition system; this could be highly dangerous.

Check the following:

- All exterior lights are working and their associated interior indicators illuminate.
- The mirrors and glass are clean and not scratched.
- The automatic transmission gear lever indicator correctly lines up next to the gear selected.
- The aim of water onto the windscreen and tailgate is correct and the wipers are in good condition.
- The demister operates.
- The condition and operation of all seat belts is good. (Give each a sharp tug to make sure that it locks and check that all buckles are clean and operating correctly.) Remember that seat belts must never be worn twisted.

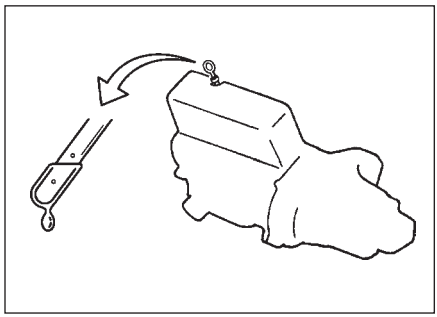
ENGINE OIL LEVEL

Check the level

It is normal for engines to consume some oil. For this reason you should check the engine oil level every 500 km and before starting long trips.

Check the oil with the vehicle parked on level ground and with the engine at normal operating temperature but switched off. Wait at least five minutes for the oil to settle.

- Locate and remove the oil dipstick (it has a yellow finger grip).
- Wipe the dipstick clean, noting the level indicator marks.
- Push the dipstick into the tube, seating it fully.
- Wait a moment for the oil to level out around the dipstick.
- Withdraw the dipstick and inspect the oil level.
- Add oil as required to maintain the level between the upper and lower limit marks.



The distance between the marks represents approximately 1 litre of oil.

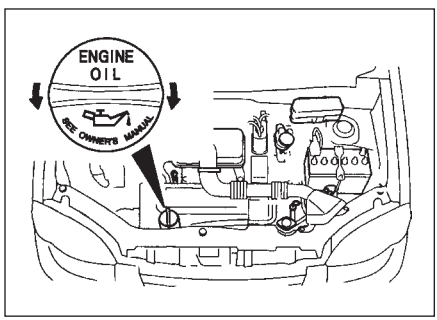
Add oil

Ensure that you use the correct oil. Refer to Chapter 8.

You can judge the rate of oil consumption after the consumption stabilises. (This may take several thousand kilometres.)

Non-detergent oils and other low quality oils, break-in oil, tune up compounds, friction reducing compounds and other supplemental additives are not recommended. These can be detrimental and may void your New Vehicle Warranty.

- Undo the cap on top of the engine (it is black).
- Add enough oil to bring the level to the top mark.
- Wait a few minutes then check the level again.
- Add more, as required, until the level is correct.
- Install the oil cap and the dipstick and clean any spilt oil.



WARNING:

Do not overfill the engine with oil.

ENGINE COOLANT LEVEL

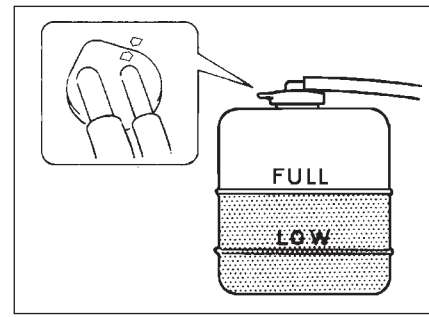
Check the level

The level of coolant should be checked at least weekly.

- Ensure the engine is cold.
- Locate the coolant reservoir in front of the battery (it has a green cap).
- View the coolant through the plastic.

The level should be between the LOW and HIGH marks.

The level rises when the engine is running and drops again when the engine cools down.



Add coolant

Add coolant if the level falls below the LOW mark.

Ensure that you use the correct coolant. Refer to Chapter 8 .

- Mix a solution of 30% Holden Cruze coolant and 70% water.
- Add enough solution to bring the level to just over the LOW mark. (For a cold engine.)
- Install the coolant reservoir cap.

You risk voiding your warranty if you fail to:

- use a coolant meeting Holden's specification
- maintain the specified concentration of solution.

In an emergency, plain water may be used temporarily. You must obtain and apply the correct coolant as soon as possible.

The specified coolant contains:

- corrosion inhibitors for the best corrosion protection of your engine and cooling system.
- an agent that increases the boiling point to give greater hot weather protection
- an agent providing cold weather protection down to –30° (when you maintain the correct concentration).

If you need to top up the cooling system regularly, you should arrange for a Holden Retailer to inspect and repair the system.

WARNING:

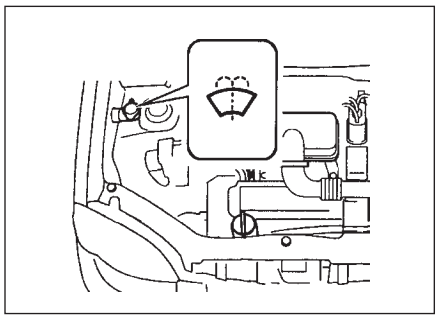
Corrosion inhibitors and antifreeze fluids are poisonous. Use extreme care when handling. If swallowed seek medical attention. Do not remove the cooling system cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which could cause serious burns.

WASHER FLUID LEVEL and BATTERY

Washer fluid level

You should check the washer fluid level weekly and fill it as required.

The washer reservoir serves both the windscreen and tailgate washers.



WARNING:

Do not operate the washer motor if the reservoir is empty.

The reservoir is located in the engine bay, on the driver's side (it has a blue cap).

- Open the flip top cap.
- Fill the reservoir with water.
- Secure the cap.

You can use an additive for extra cleaning power. Refer to Chapter 8.

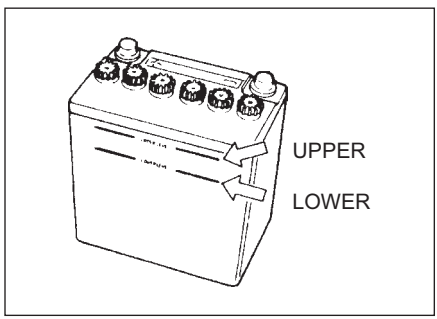
WARNING:

Do not use ordinary soap, detergent or antifreeze agents in your washer reservoir. These cause froth and can also damage the wiper rubbers and / or the paint.

Battery

The level of the battery solution must be kept between the UPPER and LOWER lines.

If the level falls below the LOWER line, you should add distilled water until the level reaches the UPPER line.



Periodically check the battery, terminals, and hold-down bracket for corrosion.

Remove corrosion using a stiff brush and ammonia mixed with water, or baking soda mixed with water. Then rinse the area with clean water.

Do not disconnect the battery while the engine is running.

To remove the battery, disconnect the negative cable then the positive cable. Reconnect using the reverse procedure.

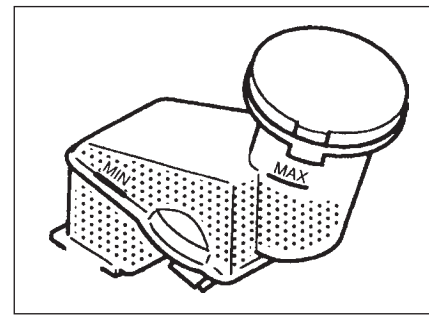
Do not charge the battery while still connected to the vehicle.

BRAKE FLUID LEVEL

Check the level

WARNING:

Brake fluid is poisonous and corrosive and will damage the paint finish of your vehicle if spilt.



You should check the brake fluid in the master cylinder weekly.

- Locate the master cylinder on the driver's side of the engine bay (it has a grey cap).
- View the brake fluid through the plastic.

The level should be between the MIN and MAX lines. If the level is near the MIN line, you should add brake fluid.

Do not remove the master cylinder cap unless adding fluid. Brake fluid exposed to the atmosphere absorbs moisture quickly. This lowers the boiling point of the fluid and increases risk of corrosion to brake components.

Add brake fluid

Clean around the cap.

Use the correct heavy duty brake fluid. (Refer to Chapter 8.)

- Carefully remove the cap and place it on a clean rag away from any paintwork.
- Add fluid until the level reaches the MAX line.
- Install the cap.
- Thoroughly clean any spilt or dripped fluid.

Use only new brake fluid. Using old, used or inferior brake fluid can endanger the functioning of the brake system.

You should arrange for a Holden Retailer to inspect and repair the system as soon as possible if:

- the master cylinder regularly requires filling
- the brake warning light illuminates when the engine is running and the park brake is disengaged (Refer to Chapter 1.)
- you notice a rapid loss of brake fluid from the system.

AUTOMATIC TRANSMISSION FLUID LEVEL

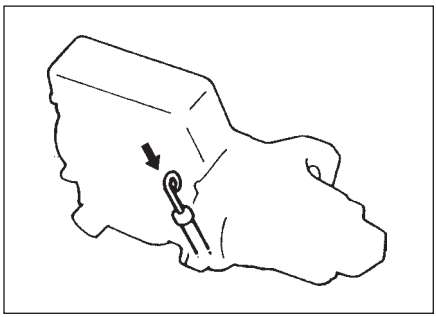
The fluid level indication will not be correct if you check the level immediately after the vehicle has been:

- driven for a long time at high speed
- driven in city traffic in hot weather
- towing (i.e. a trailer).

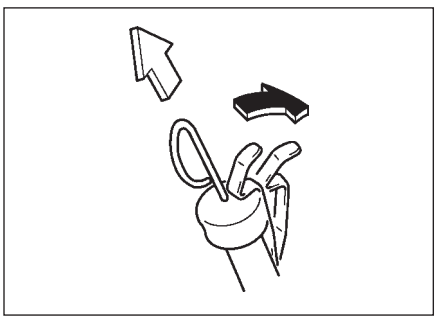
Wait about 30 minutes for the fluid to cool down.

Check the level

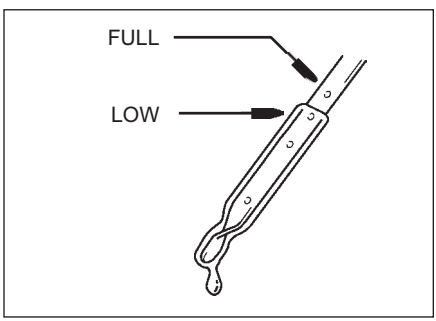
Check the fluid with the vehicle on level ground and the engine at normal operating temperature. That is, after the temperature gauge has indicated normal operating temperature for at least ten minutes.



- Ensure that the park brake is applied and P (Park) is selected.
- Start the engine and let it idle for 2 minutes. Keep the engine running during the fluid level check.
- With your foot on the brake pedal, move the selector lever through each gear, pausing for about 3 seconds in each position.
- Move the selector back to the P position.
- From the engine bay, locate and remove the dipstick (it has a red finger grip).
- Clean the dipstick noting the level indication holes.
- Push the dipstick back into the tube, seating it fully.
- Pull it out again and read the fluid level.



The level should be between the top two holes in the dipstick.



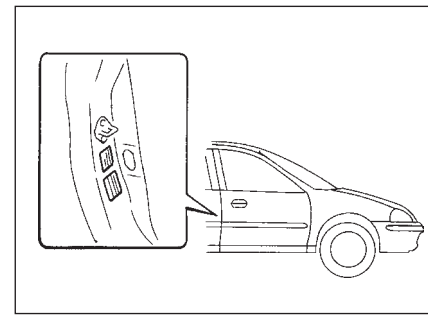
Add transmission fluid

Use the correct automatic transmission fluid. (Refer to Chapter 8.)

- Add just enough fluid through the dipstick hole to raise the level to the 'full' indicator.
- Push the dipstick back into the tube, seating it fully.

TYRES

Tyre air pressure



Checking the air pressure of your tyres (including the spare) ensures your safety, as well as reducing fuel consumption and increasing the life of your tyres.

To ensure your vehicle maintains optimum handling, check the pressures weekly. For constant long distance or rough road travelling, daily checking is recommended.

For the correct pressure for your tyres, refer to the tyre placard on the inside of the fuel filler flap.

Always use a tyre pressure gauge to check the tyres. Simply looking at the tyres is not sufficient.

Tyre inflation pressure increases when the tyres have been driven for more than 2 km. The pressure should be checked when the tyres are cold (stationary for more than 3 hours). If they must be checked immediately after driving, increase the pressure shown on the placard by 10%.

If the vehicle is heavily loaded, the recommended pressure for the tyres is increased. Refer to the tyre placard on your vehicle. As the tyres are operating under greater load, the weekly air pressure becomes even more important.

The inflation pressure should be increased according to the load on the vehicle. Therefore, if the vehicle is loaded to half the maximum payload (refer to Chapter 10), then the tyres should be inflated half way between the minimum and maximum pressures shown on the tyre placard. Vehicles driven for prolonged periods over rough roads, particularly in outback conditions, should use the cold tyre inflation pressure for maximum load condition.

If the pressure is too low, this can result in considerable tyre warm-up and internal damage leading to tread separation and even to tyre blowout at high speeds. If the pressure is too high, this can result in reduced traction, increased risk of tyre blowout and poor tyre wear.

Remember to install any valve dust caps or extensions, if so equipped. This stops dirt and moisture from fouling the valves.

When checking the tyre air pressure, take a look at the condition of the tyre tread and inspect for stones or abnormal wear.

Alignment and balance

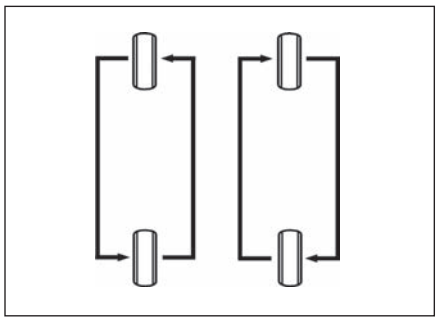
Improper wheel alignment can cause the tyres to wear faster and unevenly. It can also cause the vehicle to 'pull' to the left or right.

Out-of-balance wheels and tyres can cause annoying vibration and uneven tyre wear such as cupping and flat spots.

If you have any reason to suspect that either of these problems exist then have a wheel alignment and balance check done by your Holden Retailer.

TYRES cont.

Tyre inspection and rotation



Front and rear tyres perform different jobs and can wear differently depending on the types of roads driven, your driving habits, alignment, balance, tyre pressures etc.

Tyre condition will be checked for you when you take your vehicle to be serviced by a Holden Retailer. The Retailer will be able to diagnose any unusual signs of wear. If the tyres are rotated, it is recommended that the balance be checked at the same time.

Note: The space saver spare wheel cannot be used in tyre rotation.

Heavy treads

Caution must be exercised when using tyres with heavy treads, including tyres designed to gain traction in bad weather conditions. At sustained high speeds, this type of tyre will run at higher temperatures than standard tyres and consequently should only be operated within the limits recommended by the manufacturer.

Any doubts concerning the fitness of the tyres on your vehicle for the purpose you require should be referred to a Holden Retailer.

Wheel replacement

When replacing wheels for any reason, ensure that the new wheels are equivalent in diameter, rim width, offset and mounting configuration to those originally installed in your vehicle.

Note that replacing your factory fitted wheels and tyres with non-specified wheels and tyres may affect your warranty as well as your motor vehicle insurance policy.

Tyre traction

WARNING:

A decrease in driving, cornering and braking traction occurs when water, snow, ice, gravel or other material is on the road surface. Driving practises and speed should be adjusted to the road conditions.

When driving on wet or slushy roads, it is possible for a wedge of water to build up between the tyre and road surface. This phenomenon, known as hydroplaning, may cause partial or complete loss of traction which adversely affects control and stopping ability. To reduce the possibility of traction loss, the following precautions should be observed.

1. Reduce speeds during rainstorms, when roads are slushy or if the road has puddles.
2. Replace the tyres when the tread wear indicators are visible.
3. Check that the tyres are properly inflated.

TYRES cont.

Tyre replacement and repair

WARNING:

Do not mix different tyre construction types, such as radial and cross ply, on your vehicle except in emergencies, because your vehicle's handling could be affected and may result in loss of control.

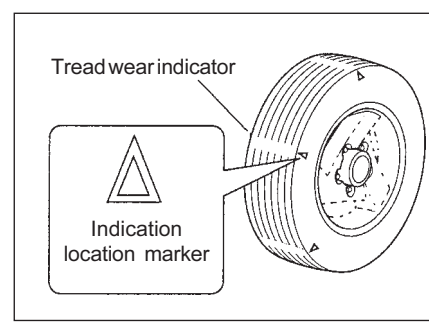
When replacing tyres you should use the same size, load rating and construction type as the original tyres on your vehicle. Refer to the tyre placard on your vehicle for tyre size and load rating. Using a different size or type of tyre may affect such things as ride, handling, speedometer / odometer calibration, ground clearance and tyre clearance to the body or chassis.

Tyres with a higher speed rating and / or maximum load rating in excess of that listed are also acceptable as replacements provided they are fitted to a suitable rim size.

New tyres should be fitted in pairs to the front. If replacing only one tyre, it should be paired on the same axle with the least worn of the other three.

You should replace your tyres when:

1. The tyres are worn to the point where the tread wear indicators, as shown, appear or the cord or fabric is showing.
2. The tread or side wall is cut, split, or cracked deep enough to expose the cord or fabric.
3. The tyre has a bump or bulge in it, indicating internal damage.
4. The tyre has a puncture, cut or other damage which can't be repaired because of the size or location of the damage.



If in doubt about the extent of damage to the tyre, have it removed from the wheel and examined by a tyre specialist.

If a pressure loss occurs while driving, do not attempt to drive on the deflated tyre more than is necessary to stop safely. Driving even a short distance on a deflated tyre can damage it and the wheel beyond repair.

When an object which has punctured the tyre is removed, repairs are to be made in accordance with the tyre manufacturer's recommendations.

WARNING:

Tyres which have been repaired or retreaded cannot be operated safely at high speeds. Therefore, their use is not recommended.

CHAPTER 8

Specifications

Page

8-2 Specifications

8-3 General specifications

8-4 Identification labels

SPECIFICATIONS

Engine type	M15A, 16 valve DOHC
Piston displacement	1490 cc
Compression ratio	9.5:1
Bore	78.0 mm
Stroke	78.0 mm
Power	74 kW @ 6,000 r.p.m.
Torque	138 Nm @ 4,500 r.p.m.
Oil specification	ACEA service classification A2 or A3. viscosity grade 10W-30.
Refill oil capacity	3.8 litres approx. (including filter)
Fuel tank capacity	41 litres
Coolant capacity	5.1 litres (including reservoir tank)
Coolant ratio / type	Mixture using 30% Holden coolant (part number 92145591) with 70% water.
Brake fluid type	DOT 3, SAE specification J1703
Windscreen washer fluid	Add a small amount of Optikleen (Holden part no. 92140005) to the water

GENERAL SPECIFICATIONS

Transmission

	5 speed manual transmission	4 speed auto transmission
Fluid capacity	2.2 litres	5.8 litres
Fluid type	Gear oil, API GL-4 SAE 75W-90 or equivalent	Auto trans fluid, Dexron®-III

Transfer case and differential

	Transfer case	Differential
Fluid capacity	0.5 litres	1.0 litre
Fluid type	Gear oil, API GL-5 SAE 80W-90 Hypoid or equivalent	Gear oil, API GL-5 SAE 80W-90 Hypoid or equivalent

Dimensions

Overall length		3625 mm
Overall width		1640 mm
Overall height		1605 mm
Track	Front	1420 mm
	Rear	1405 mm
Wheel base		2360 mm

Battery

Volts	12
Amp. hours	28

IDENTIFICATION LABELS

Engine number

Individual identification numbers are stamped onto the engine.

Safety compliance plate

The safety compliance plate is located in the engine bay, on the passenger side end of the fire wall.

Tyre placard

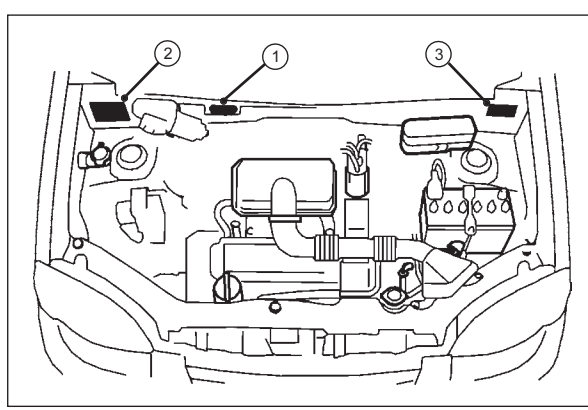
The tyre placard is located on the inside of the driver's door-lock pillar.

Holden identification plate and Holden number

The Holden identification plate (if fitted) is located in the engine bay, on the passenger-side inner guard. The Holden number displayed on this plate is used for warranty identification, Roadside Assistance identification etc.

Vehicle identification number stamp

This stamp shows the ISOVIN number, which should be used for identification of spare parts. Refer to the following page for the breakdown of the ISOVIN number. The ISOVIN number (1) is stamped into the rail, at the driver's side of the engine bay, on the identification plate (2) and is also on the safety compliance plate (3).



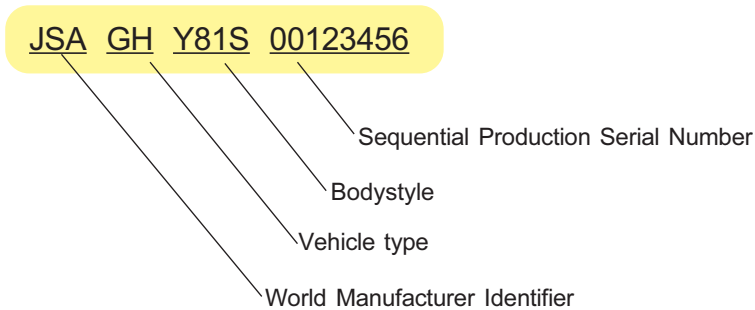
Safety compliance plate

The safety compliance plate (3) shows the vehicle approval number, category code, make, model and seating capacity.

IDENTIFICATION LABELS

Vehicle identification number (ISOVIN)

The individual ISOVIN Number appears on the Safety Compliance Plate, on the firewall in the engine compartment. This number is used for identification of parts.



CHAPTER 9

After Sales

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Note: The names and details of Retail Premises may change after the printing of this Handbook. The list contains both Authorised Holden Retailers and Authorised Holden Service Operations.

NEW VEHICLE WARRANTY CERTIFICATE

New Vehicle Warranty application

This Warranty is given by Holden Ltd, ABN 84 006 893 232, ('Holden'). The Warranty applies to the vehicle identified on the inside front cover of this Owner's Handbook. It is provided to the original and subsequent owners / operators driving the vehicle within Australia during the Warranty Period.
This Warranty is given in addition to all rights conferred by law on that person.

Australian vehicles

This Warranty is only applicable to vehicles purchased and operated in Australia.

Owners of vehicles purchased in Australia but operated overseas should consult the local retailer in the country of operation about any Warranty applicable to their vehicle. This Warranty does not apply for Holden vehicles exported overseas. Similarly, this Warranty is not provided for vehicles purchased overseas and imported into Australia.

Repairs covered

Subject to the exclusions shown on the following page, this Warranty covers the correction, during the Warranty Period, of any vehicle defect related to materials or workmanship and advised to a Holden Retailer or Authorised Service Outlet, by repair or at Holden's option by replacement.

Warranty Period

The coverage commences from the date of delivery (or in the case of a demonstrator vehicle the date when the vehicle was first placed into service by the Retailer). The coverage expires at the end of the period of 3 years after the commencement date or after the vehicle has travelled 100,000 kilometres, whichever occurs first.

No charge

Warranty work undertaken (including parts and labour) will be carried out at no cost to the vehicle owner. However, this work should not be confused with servicing specified in the Maintenance schedule in Chapter 12 of this Owner's Handbook for which a charge is payable.

NEW VEHICLE WARRANTY CERTIFICATE cont.

Warranty exclusions

- **Damage**

Your Warranty does not extend to the following damage: Damage caused by an accident, fire, theft or moving objects striking the vehicle.

Damage caused by industrial fallout, chemicals or sealants. Damage caused by atmospheric fallout or flood, hail, salt, etc.

- **Maintenance items**

Services such as, brake adjustment, replacement of filters, wiper rubbers etc, which are required as part of normal vehicle maintenance, refer to Chapter 12.

- **Tyres**

The tyres (and tubes where applicable) fitted to your vehicle are not covered by this Warranty. However, they may be covered by the tyre manufacturer.

- **Batteries**

Batteries are warranted for 12 months.

- **Misuse**

The warranty does not cover damage caused by:

(a) misuse or abuse of the vehicle such as by racing, rallying, overloading, etc, or neglect

(b) operation of the vehicle after the defect is known

(c) failure to carry out proper maintenance services

(d) use of incorrect types and grades of fuel, oil or lubricants

(e) alteration of the vehicle by anyone not authorised by Holden

(f) fitting of parts or accessories not recommended by Holden

(g) any work carried out on the vehicle by anyone except a Holden Retailer or authorised Service Outlet.

PARTS AND ACCESSORIES WARRANTY

Holden warrants Holden approved Parts and Accessories ('Parts' and 'Accessories') for the periods and on the conditions set out below. The Warranty covers the correction, during the relevant Warranty Period, of defects in any such Parts and Accessories, by repair or at Holden's option by replacement.

- **Accessories installed to the new vehicle**

  Holden approved Accessories installed by a Holden Retailer or authorised Service Outlet to the new vehicle at the time of purchase are covered together with the New Vehicle warranty for the period of 3 years or 100,000 km, whichever occurs first.

- **Parts and Accessories installed after new vehicle delivery by a Holden Retailer or authorised Service Outlet**

  Parts and Accessories are covered for 2 years or 50,000 km (whichever occurs first). If the vehicle is still within the New Vehicle Warranty the Parts and Accessories are covered by the longer of:

  2 years / 50,000 km (whichever occurs first)

  or

  the end of the New Vehicle Warranty.

  As an example, an Accessory installed in a 7 month old vehicle would be covered until the end of the New Vehicle Warranty; an Accessory installed in a 2½ year old vehicle would be covered until the end of 4½ years or a further 50,000 km from when the Accessory was installed.

- **Purchased at retail or trade**
  Parts and Accessories purchased at trade or retail and installed by other than a Holden Retailer or authorised Service Outlet are warranted for 1 year from the date of purchase. Please keep a receipt to support warranty claims.

  The Warranty does not cover the labour costs of removal / reinstallation of Parts and Accessories when installed or rectified by other than a Holden Retailer or authorised Service Outlet.

- **Parts and accessories warranty exclusions**

  The tyres (and tubes where applicable) are not covered by this warranty. However, they may be covered by the tyre manufacturer.

  Batteries are warranted for 12 months from date of purchase.

  Parts which are required as part of normal vehicle maintenance are warranted against manufacturing defect at the time of installation. Consult your Holden Retailer to confirm the period of this warranty.

WARRANTY QUESTIONS AND ANSWERS

This section is designed to assist you in understanding the Holden Warranty provided with your new vehicle.

The following are some of the most frequently asked questions, for which detailed answers are provided.

Q 1. How do I go about obtaining Holden Warranty service?

It is the responsibility of the Holden Selling Retailer to provide Holden Warranty service, therefore you should take your vehicle to the Holden Selling Retailer whenever Holden Warranty service is needed. However, if this is not possible, you may go to any other Authorised Holden Retailer. The details recorded inside the front cover of this handbook will be required by the Holden Retailer.

Q 2. What should I do if my vehicle becomes unsafe or inoperative as a result of a defect which is covered by the Holden New Vehicle Warranty?

You should contact the nearest Authorised Holden Retailer or Holden Customer Assistance Service (refer further in this chapter) as soon as possible, and arrange for that Retailer to carry out the required Holden Warranty Service.

Q 3. What should I do if, in an emergency, Holden Warranty service is required and an Authorised Holden Retailer is not available to provide such service at the time?

If, in an emergency, a repair, replacement or adjustment (covered by the Holden New Vehicle Warranty) is required to enable your vehicle to be operated safely and it is not practical for you to go to an Authorised Holden Retailer, the service (to the extent that it is necessary to enable your vehicle to be operated safely) may be performed by any other qualified mechanic or repairer. A claim for the reasonable cost may be made through the Authorised Holden Retailer who would normally provide you with Holden Warranty Service. You must also take your vehicle to the Authorised Holden Retailer for inspection of the service and / or completion of any required Holden Warranty service, as soon as possible.

Note: During normal business hours you should seek authorisation from your nearest Authorised Holden Retailer or Holden Customer Assistance Service, prior to repairs being commenced.

Q 4. Are damage or injury, loss of time, inconvenience, commercial or other direct or indirect loss covered by the Holden Warranty?

No, these items are not covered. Holden warranty only covers the repair, replacement or adjustment of those parts of your vehicle which are found to be defective in materials or workmanship. No other types of claim for compensation of any kind, even if the same resulted from a consequence of a defect in materials or workmanship in your vehicle, will be recognised under the Holden New Vehicle Warranty.

You may have rights under the law to claim compensation outside of the Holden New Vehicle Warranty, but any claim based on those rights should be separately pursued.

WARRANTY QUESTIONS AND ANSWERS cont.

Q 5. Will I have to pay for maintenance costs during the Warranty Period?

Maintenance costs are not covered by the Holden New Vehicle Warranty. The maintenance schedule in Chapter 12 specifies the *minimum* maintenance required for your vehicle operating under normal conditions.

The Maintenance items (except where they are required as a result of defects in materials or workmanship) for which you will have to pay include:

- Engine tune-up, including spark plugs replacement.
- Replacement of all filters, engine and other belts, hoses, wiper blades, clutch linings.
- Cleaning or flushing of fuel, coolant, brake, engine, transmission, differential, power steering etc., after 1,500 km.
- Carbon and sludge removal.
- Maintenance servicing of emission control system devices.
- Adding to (or replacing) lubricants.
- Adding to (or replacing) air conditioning refrigerant, after 1,500 km.
- Any necessary adjustments to drive belts, transmissions, clutch, park brake etc.
- Wheel balancing – after 5,000 km.
- Wheel alignment.
- De-dusting or de-glazing of brake linings or pads – after 1,500 km.
- Brake lining wear or damaged brake components due to lining wear.
- Clutch lining wear or damaged clutch components due to lining wear.
- Battery recharging.
- Paint, bright metal finish and trim, due to normal deterioration.
- Body panel adjustment – after 1,500 km.
- Door or bonnet lock adjustments.
- Glass or channel adjustments – after 1,500 km.
- Body rattle, squeaks and general tightening of bolts, fasteners and fittings – after 1,500 km.
- Chipped glass or breakage.
- Torn or damaged floor mats or carpets.
- Normal wear and tear to trim components.

Q 6. Are my tyres covered by the Holden New Vehicle Warranty?

No. The tyres fitted to your vehicle are covered by a separate warranty provided by the tyre manufacturer. Any Authorised Holden Retailer will assist you by discussing any queries which you might have with respect to the tyre manufacturer's warranty with the tyre manufacturer's representative.

WARRANTY QUESTIONS AND ANSWERS cont.

Q 7. Will I have to pay for any costs or expenses in connection with the provision of Holden Warranty service?

All parts and labour used in carrying out Holden Warranty service at the premises of the servicing Holden Retailer are free of charge. Whenever Holden Warranty service is to be carried out by the servicing Holden Retailer it is your responsibility to deliver your vehicle to the servicing Holden Retailer's premises.

If, as a result of a defect which is covered by the Holden New Vehicle Warranty, your vehicle cannot be driven safely and you arrange for the nearest Authorised Holden Retailer to carry out the required Holden Warranty service, Holden will accept reasonable towing costs to move your vehicle to the nearest Holden Retailer's premises. Before employing a towing company, contact the nearest Holden Retailer and / or Holden Customer Assistance Service (refer page 10 of this Chapter) to obtain guidance.

Q 8. Would my vehicle's engine benefit from fuel additives, oil additives or coolant additives not marketed by Holden?

The use of break-in oil, tune-up compounds, friction-reducing compounds and other supplemental additives is not recommended; their use will not only increase operating costs, but may also be detrimental to the operation of your vehicle and can affect the validity of your New Vehicle Warranty.

Only the fluids and lubricants referred to in this handbook should be used.

UNAUTHORISED STATEMENTS IN RELATION TO HOLDEN PRODUCTS

No Holden Retailer or other person is authorised or permitted to give or make any statement, assertion or undertaking in relation to the quality, performance, characteristics, descriptions or fitness for any purpose of any Holden product or in connection with the supply of any Holden product, which is at variance with any written statement, assertion or undertaking on any of these subjects given or made by Holden in its published sales literature, and Holden does not accept responsibility for any such unauthorised action.

ROADSIDE ASSISTANCE

3 YEAR
24 HOUR ROADSIDE ASSISTANCE

Our commitment to your satisfaction

Holden's Roadside Assistance is part of the unequalled commitment by Holden to provide total motoring satisfaction.

From the moment delivery is made, our aim is to provide the finest possible ownership experience, from design through manufacturing to servicing and now beyond to the open road, Australia wide.

We hope the need never arises, but if it does, we'll be there to help through Holden Roadside Assistance.

How does Holden Roadside Assistance work?

Holden Roadside Assistance is provided by Holden Ltd. and delivered by the collective resources of the Australian Automobile Clubs and Associations including the constituents of Assist Australia (AA).

Which vehicles are covered by the service?

As of 1st November 1993 all new Holden passenger and light commercial vehicles are covered for 36 months from the date of first registration.

Holden Roadside Assistance is extended to private and business vehicles, taxis, rental companies, all government and fleet operators.

What will Holden Roadside Assistance do for me?

Holden Roadside Assistance is designed to get you mobile on any road that is trafficable to normal two wheel drive vehicles. In the event of the unexpected happening, from your keys being locked in your vehicle to mechanical and accident advice, help is readily available by simply calling the toll free number 1800 817 100.

All Holden luxury vehicles receive the added benefits of Holden Roadside **Ultra** Assist which includes accommodation, alternative transport, rental car, assistance in case of accident, theft and medical emergency and Australia-wide vehicle recovery.

Can I upgrade to Roadside Ultra Assistance?

Yes, owners can upgrade to Holden Roadside **Ultra** Assistance for a fee by dialling 1800 645 668. To request a copy of the Ultra terms and conditions, contact the toll free Customer Assistance Service Line on 1800 033 349.

ROADSIDE ASSISTANCE cont.

When do the benefits begin?

Cover begins from the date of first registration. An interim card entitles you to immediately receive all the benefits of Holden Roadside Assistance.

Where can I get Roadside Assistance?

Holden Roadside Assistance is available to you at home, or at the roadside, anywhere in Australia, should you need it. In remote or sparsely populated areas you may experience delays in obtaining Roadside Assistance due to your location, the availability of the service provider and accessibility.

Is there a membership or joining fee?

No, Holden Roadside Assistance is complimentary with every new Holden passenger vehicle and light commercial vehicle for 36 months from the date of first registration.

What will Holden Roadside Assistance cost me?

Materials, fuel and spare parts must be paid for at the time of service. The service personnel attending will issue a receipt for these expenses. Reimbursement of expenses covered by Holden's warranty can be claimed by contacting your local Holden Retailer.

What happens if I sell my vehicle?

Holden Roadside Assistance stays with the vehicle, so if you sell your vehicle during the 36 month period, it is still eligible for the balance of the Holden Roadside Assistance. The new owner simply registers for the service by using the change of ownership form supplied in the Roadside Assistance booklet.

How do I call for assistance?

Simply call Holden Roadside Assistance toll free on 1800 817 100 from anywhere in Australia. For further information regarding the service and full terms and conditions, refer to the Roadside Assistance Kit in the glovebox or call the toll free Customer Assistance Service Line on 1800 033 349.

CUSTOMER ASSISTANCE

We want you to be happy with your new vehicle, together with the people you deal with while you have the vehicle.

Normally, any problems with the sales, operation, servicing or the validity of original equipment supplied with your vehicle will be handled by your Holden Retailer's Sales and Service Department.

We realise however that, with the best intentions, misunderstandings do occur sometimes.

Therefore, we suggest you discuss any concern with one of the Holden Retailer's management people. If you haven't received satisfaction from the Sales Manager or Service Manager – go to the General Manager or to the Dealer Principal.

By now you should have satisfaction. If not, the Holden Customer Assistance office is at your disposal.

The Australian Holden Customer Assistance representatives can be telephoned from anywhere within Australia for only the cost of a local call. The Melbourne area number is **9646 5466**. Outside the Melbourne Metropolitan area, the number is **1800 03 3349**.

If your concern relates to parts / accessories and you have made contact with the Retailer or Distributor without satisfaction, you may contact Holden Service Parts Operations on (03) 9797 7341.

Naturally, telephoning is the quickest and the best way to contact. However, if you prefer to write, the address is:

The Manager
Holden Customer Assistance Centre
GPO Box 1714
Melbourne 3001

Your letter should clearly outline your concern or query, and include the following:

- Your name and address
- Telephone numbers, both private and business
- Servicing Retail Premise's name and address
- Vehicle model
- Vehicle identification number (I.S.O.V.I.N.), refer to the inside front cover of this Handbook
- Date of purchase
- Current odometer reading

Most of this information will be found on the Vehicle Identification Certificate, located inside the front cover of this handbook.

Before you write however, remember that the telephone is the quicker and more efficient means of communication.

FOR NEW ZEALAND HOLDEN OWNERS

The information in this Owner's Handbook applies primarily to Australian Holden vehicles and there may be some differences to the Warranty and Owner Assistance provisions for New Zealand. Applicable details for New Zealand are set out in the Holden Warranty and Owner Assistance Information booklet enclosed in the New Zealand glovebox wallet.

For your convenience, a list of New Zealand Retailers is provided at the end of this Chapter.

New Zealand Assistance can be reached on:

0800 HOLDEN (0800 465336)

This number provides access to New Zealand Roadside Assistance as well as New Zealand Customer Assistance.

If you prefer to write, the address is:

The Manager
Holden Customer Assistance Centre
GPO Box 1714
Melbourne
Australia 3001

AUSTRALIAN HOLDEN DEALERS

N.S.W. Metropolitan

ARNCLIFFE
Suttons Motors Arncliffe P/L
93 Princes Highway
P: (02) 9335 9000 FAX: (02) 9335 9006

ASHFIELD
Muirs Holden
252 Parramatta Road
P: (02) 9798 8888 Fax: (02) 9799 7010

BALGOWLAH
Peninsula Holden Balgowlah
164 Condamine Street
P: (02) 9949 1888 FAX (02) 9949 7237

BANKSTOWN
Peninsula Holden Bankstown
466 Chapel Road
P: (02) 9790 1234 Fax: (02) 9790 0033

BLACKTOWN
Heartland Holden
120~128 Sunnyholt Road
P: (02) 8811 0800 Fax: (02) 9672 8377

CAMDEN
Paul Wakeling Holden-Camden
33 Edward Street
P: (02) 4655 5000 Fax: (02) 4655 5001

CAMPBELLTOWN
Paul Wakeling Holden
Cnr Blaxland & Mill Roads
P: (02) 4628 1444 Fax: (02) 4628 3262

CASTLE HILL
Heartland Holden
Cnr Victoria Ave/Windsor Rd
P: (02) 9894 6666 Fax: (02) 9894 5600

CHATSWOOD
Sundell Holden
Cnr Smith and Gibbes Street
P: (02) 9417 8431 Fax: (02) 9497 7552

CHULLORA
Suttons Motors (Chullora) P/L
Cnr Hume Hwy/Waterloo Rd
P: (02) 9642 0233 Fax: (02) 9642 7798

DEE WHY
Peninsula Holden Dee Why
Cnr May & Mooramba Roads
P: (02) 9982 1311 Fax: (02) 9982 3755

EASTSYDNEY
Suttons City Holden
137-157 Bourke Street
P: (02) 9357 4222 Fax: (02) 9358 5542

FAULCONBRIDGE, BLUE MOUNTAINS
Blue Mountains Holden
435~437 Great Western Hwy
P: (02) 4751 1911 Fax: (02) 4751 2481

HOMEBUSH
Suttons Motors Homebush P/L
112 Parramatta Road
P: (02) 9746 4500 Fax: (02) 9746 7206

LAKEMBA
United Holden Lakemba
817 Canterbury Road
P: (02) 9740 5555 Fax: (02) 9740 5907

LANSVALE
Lansvale Holden
266~284 Hume Highway
P: (02) 9728 7333 Fax: (02) 9726 1085

LIVERPOOL
McGrath Holden
411~419 Hume Highway
P: (02) 9821 5000 Fax: (02) 9821 1993

PARRAMATTA
Heartland Holden
65 Church Street
P: (02) 9204 6666 Fax: (02) 9635 6346

PENNANT HILLS
Barry Smith Holden
343~355 Pennant Hills Road
P: (02) 9483 3333 Fax: (02) 9484 7475

PENRITH
Heartland Holden
Cnr Henry St & Evan Street
P: (02) 4732 1966 Fax: (02) 4721 5896

ROCKDALE
United Holden Rockdale
591 Princes Hwy
P: (02) 9567 0400 Fax: (02) 9597 0410

ROSEBERY
Suttons City Holden
Link Road
P: (02) 9931 3000 Fax: (02) 9931 3001

RYDE
Hunter Holden
603~619 Victoria Road
P: (02) 9808 9123 Fax: (02) 9809 6592

AUSTRALIAN HOLDEN DEALERS CONT.

STLEONARDS
Hunter Holden
4 Herbert Street
P: (02) 9906 4044 Fax: (02) 9439 4635

ST. MARY'S
Heartland Holden
Cnr Glossop & Harris Streets
P: (02) 9673 2111 Fax: (02) 9673 4932

SUTHERLAND
McGrath Holden Sutherland
499~505 Princes Highway
P: (02) 9545 4811 Fax: (02) 9545 2533

WAITARA
Suttons Motors Waitara P/L
90 Pacific Hwy
P: (02) 9487 2222 Fax: (02) 9489 0009

WINDSOR
Hawkesbury Valley Holden
18 Macquarie Street
P: (02) 4577 4077 Fax: (02) 4577 2592

N.S.W. Country

ARMIDALE
Graham Betts Holden
103 Rusden Street
P: (02) 6772 9444 Fax: (02) 6772 5836

BALLINA
Quayside Motors
Cnr Ronan Place & Pacific Hwy
P: (02) 6686 5111 Fax: (02) 6686 8574

BATEMANS BAY
Surfair Holden
30-32 Orient Street
P: (02) 4472 5111

BATHURST
Bathurst Holden
Mitchell Highway
P: (02) 6331 2077 Fax: (02) 6331 9177

BEGA
Bega Valley Holden
Cnr Upper and Gibbs Sts
P: (02) 6492 2333 Fax: (02) 6492 3105

BLAYNEY
Blayney Holden
98 Adelaide Street
P: (02) 6368 2745 Fax: (02) 6368 3257

BOMBALA
Delcott Engineering Pty Ltd
Maybe Street
P: (02) 6458 3341 Fax: (02) 6458 3940

BOOROWA
Boowowa Auto Repairs
40 Marsden Street
P: (02) 6385 3305

BROKEN HILL
Donlee Motors Pty Ltd
Cnr Galena & Rakow Streets
P: (08) 8087 2463 Fax: (08) 8087 7971

CARDIFF
Kelly Holden
35~39 MacQuarie Road
P: (02) 4954 7733 Fax: (02) 4954 9407

CESSNOCK
Geoff Boyd Holden
240~246 Maitland Road
P: (02) 4990 0555 Fax: (02) 4990 0575

COBAR
Cobar Holden
Cnr Lewis St & Louth Road
P: (02) 6836 4005 Fax: (02) 6836 3409

COFF'S HARBOUR
Geoff King Holden
Cnr Pacific Hwy and Thompson Road
P: (02) 6652 2288 Fax: (02) 6652 5360

COOMA
High Country Holden
66~70 Sharp Street
P: (02) 6452 1077 Fax: (02) 6452 1142

COONABARABRAN
Coonabarabran Holden
24 Charles Street
P: (02) 6842 1499 Fax: (02) 6842 2473

COONAMBLE
Moody's Motors
37 Aberford Street
P: (02) 6822 1161 Fax: (02) 6822 1624

COOTAMUNDRA
Jenkins Garage
111 Wallendoon Street
P: (02) 6942 2522 Fax: (02) 6942 1493

AUSTRALIAN HOLDEN DEALERS cont.

COWRA
Waugoola Motors Pty Ltd
Kendal Street
P: (02) 6342 1800 Fax: (02) 6342 3614

CROOKWELL
Crookwell Autos
114 Goulburn Street
P: (02) 4832 1433 Fax: (02) 4832 2157

DENILIQUIN
Burchfield Bros & Co
112~114 End Street
P: (03) 5881 2133 Fax: (03) 5881 3322

DORRIGO
Phil Noble Motors
46~48 Hickory Street
P: (02) 6657 2017 Fax: (02) 6657 2217

DUBBO
Golden West Holden
54 Bourke Street
P: (02) 6882 1011 Fax: (02) 6882 7102

DUNGOG
Turner Holden
248 Dowling Street
P: (02) 4992 1816 Fax: (02) 4992 1833

EDEN
Ron Doyle
113 Princes Highway
P: (02) 6496 1420 Fax: (02) 6496 1467

FINLEY
Riverina Holden
104 Murray Street
P: (03) 5883 1211 Fax: (03) 5883 1638

FORBES
Frank Spice Holden
20~22 Dowling Street
P: (02) 6851 1755 Fax: (02) 6852 2825

GATESHEAD
Brian Kelly Holden
39 Pacific Highway
P: (02) 4920 7000 Fax: (02) 4920 8008

GILGANDRA
Gilgandra Holden
3 Morris Street
P: (02) 6847 1888 Fax: (02) 6847 1277

GLENINNES
Glen Severn Holden
167 Grey Street
P: (02) 6732 2888 Fax: (02) 6732 3394

GOSFORD
Barry Robertson Holden
Pacific Highway
P: (02) 4325 0511 Fax: (02) 4324 1043

GOULBURN
Geissler Motors
279~298 Auburn Street
P: (02) 4821 3744 Fax: (02) 4821 9798

GRAFTON
Ken Casson Holden
37~39 Turf Street
P: (02) 6642 6666 Fax: (02) 6642 6737

GRENFELL
Peter Mellon Motors
40 Alexandra Street
P: (02) 6343 1522 Fax: (02) 6343 1347

GRIFFITH
Leo Franco Holden
164~166 Yambil Street
P: (02) 6964 2977 Fax: (02) 6962 4916

GUNNEDAH
Namoi Valley Motors
48 Barber Street
P: (02) 6742 0211 Fax: (02) 6742 3842

HARDEN
Ginty & O'Leary
Cnr Station & Albury Streets
P: (02) 6386 2320 Fax: (02) 6386 2722

HAY
Royce Curtis Motors
168 Lachlan Street
P: (02) 6993 1503 Fax: (02) 6993 2212

HOLBROOK
Lieschke Motors Pty Ltd
78 Albury Street
P: (02) 6036 2244 Fax: (02) 6036 2831

INVERELL
Gaukroger Sales Pty Ltd
Vivian Street
P: (02) 6722 2722 Fax: (02) 6722 1804

KANDOS
Chrisfield Holden
11 Angus Street
P: (02) 6379 4204 Fax: (02) 6379 4606

KEMPSEY
Thoroughgood Holden
118~132 Belgrave Street
P: (02) 6562 1381 Fax: (02) 6562 1383

AUSTRALIAN HOLDEN DEALERS cont.

KIAMA
Glen Fulton Holden
35~41 Collins Street
P: (02) 4232 1888 Fax: (02) 4232 3062

KYOGLE
O & H Holden
128~134 Summerland Way
P: (02) 6632 1711 Fax: (02) 6632 2552

LEETON
John Ryan Holden
47~51 Pine Avenue
P: (02) 6953 2466 Fax: (02) 6953 6725

LISMORE
Crampton Automotive Pty Ltd
Ballina Road
P: (02) 6621 1888 Fax: (02) 6622 4659

LITHGOW
Lithgow City Holden
255 Main Street
P: (02) 6351 4555 Fax: (02) 6351 4653

MACKSVILLE
Eastland Holden
18~22 Cooper Street
P: (02) 6568 1711 Fax: (02) 6568 1816

MACLEAN
O'Halloran Motors
175 River Street
P: (02) 6645 2844 Fax: (02) 6645 4003

MAITLAND
Heritage Holden
Cnr New England Hwy & Bungaree St
P: (02) 4932 0779 Fax: (02) 4932 0473

MOREE
Keith Haddad Holden
Cnr Boston & Heber Streets
P: (02) 6752 1855 Fax: (02) 6752 1298

MORUYA
Surfair Holden
88 Vulcan Street
P: (02) 4474 2555 Fax: (02) 4474 2129

MOSS VALE
Moss Vale Holden
160~162 Argyle Street
P: (02) 4868 1055 Fax: (02) 4868 3330

MULLUMBIMBY
Tony Carsburg Holden
2 Argyle Street
P: (02) 6684 2066 Fax: (02) 6684 4593

MUDGEE
Ross Granata Motors
32 Sydney Road
P: (02) 6372 1766 Fax: (02) 6372 3735

MURWILLUMBAH
Tweed Motors
29 Prospero Street
P: (02) 6672 4444 Fax: (02) 6672 5811

MUSWELLBROOK
Upper Hunter Motors Pty Ltd
116 Bridge Street
P: (02) 6543 2577 Fax: (02) 6543 2565

NARRABRI
Allan Cooper Holden
181 Maitland Street
P: (02) 6792 3488 Fax: (02) 6792 4750

NEWCASTLE
Newcastle City Holden
King Street (Cnr Stewart Ave)
P: (02) 4961 5301 Fax: (02) 4961 6485

NOWRA
Glendon Motors Holden
301~313 Princes Highway
P: (02) 4421 0144 Fax: (02) 4423 0854

NYNGAN
New Bridge Service Centre
36 Numagee Street
P: (02) 6832 1761 Fax: (02) 6832 2760

ORANGE
Canobolas Holden
Cnr Summer St & Endsleigh Ave
P: (02) 6362 0155 Fax: (02) 6361 3702

PARKES
Broderick Motors Holden
Cnr Mitchell & Clarinda Sts
P: (02) 6862 2266 Fax: (02) 6862 1406

PORT MACQUARIE
Bob Todd Motors Pty Ltd
115 Gordon Street
P: (02) 6583 1100 Fax: (02) 6584 9508

QUIRINDI
Browning Motors
82 Henry Street
P: (02) 6746 1666 Fax: (02) 6746 1422

AUSTRALIAN HOLDEN DEALERS cont.

SCONE
Upper Hunter Motors (Scone)
100 Liverpool Street
P: (02) 6545 1355

SINGLETON
Lancaster Holden
80 John Street
P: (02) 6578 8700 Fax: (02) 6578 8733

TAMWORTH
Kensell's Holden
Cnr Bourke St & Kable Ave
P: (02) 6766 6699 Fax: (02) 6766 7339

TAREE
Cullen Holden
21~25 Victoria Street
P: (02) 6552 2222 Fax: (02) 6552 1269

TEMORA
Rod Lovering Holden
607-608 Stockinbingal Road
P: (02) 6977 2255 Fax: (02) 6977 2033

TENTERFIELD
Sexton & Green (Sales & Service) P/L
148 Rouse Street
P: (02) 6736 1855 Fax: (02) 6736 1946

TUGGERAH
Barry Robertson Holden
172 Pacific Highway
P: (02) 4351 2588 Fax: (02) 4352 1759

TUMUT
Harry Kell & Sons Pty. Ltd
Cnr. Merrivale & Russell Streets
P: (02) 6947 2293 Fax: (02) 6947 3763

TUMUT
Holden Tumut Service Centre
52 Adelong Road
P: (02) 6947 6374 Fax: (02) 6947 6314

TUNCURRY
Great Lakes Holden
144 Manning Street
P: (02) 6555 6644 Fax: (02) 6555 7433

ULLADULLA
Alan May Holden
169 Princes Highway
P: (02) 4455 1166 Fax: (02) 4455 4122

WAGGAWAGGA
Wagga Motors Pty Ltd
32 Dobney Avenue
P: (02) 6925 3411 Fax: (02) 6925 3283

WALCHA
Bowdens Holden Walcha
18 Derby Street
P: (02) 6777 2226 Fax: (02) 6777 2319

WALGETT
Walgett Garage Pty Ltd
81 Wee Waa Street
P: (02) 6828 1088 Fax: (02) 6828 1198

WALLA WALLA
D.E. Lieschke & Son Pty Ltd
63 Commercial Road
P: (02) 6029 2202 Fax: (02) 6029 2134

WARIALDA
Roger Moore
Hope Street
P: (02) 6729 1570 Fax: (02) 6729 1104

WARILLA
Wilson's Holden
29 Shellharbour Road
P: (02) 4295 1223 Fax: (02) 4296 1007

WARREN
Fuller Bros
Dubbo Street
P: (02) 6847 4978 Fax: (02) 6847 4477

WELLINGTON
Gersbach's Garage Pty Ltd
92 Lee Street
P: (02) 6845 2733 Fax: (02) 6845 3236

WEST WYALONG
West Wyalong Motors
183 Main Street
P: (02) 6972 2388 Fax: (02) 6972 2570

WOLLONGONG
Dwyers City Holden
31~33 Crown Street
P: (02) 4229 9222 Fax: (02) 4229 5105

YOUNG
Harden & Geelan Holden
30 Boorowa Street
P: (02) 6382 1155 Fax: (02) 6382 4673

AUSTRALIAN HOLDEN DEALERS cont.

A.C.T.

BELCONNEN
Gerald Slaven Holden
2 Josephson Street
P: (02) 6251 5111 Fax: (02) 6253 1298

BRADDON
Rolfe Holden
44 Mort Street
P: (02) 6248 7888 Fax: (02) 6257 1328

PHILLIP
Commonwealth Motors Pty Ltd
158 Melrose Drive
P: (02) 6282 3522 Fax: (02) 6282 5214

Tas.

BURNIE
Motors Burnie
Marine Terrace
P: (03) 6431 1122 Fax: (03) 6431 3146

DEVONPORT
Motors Devonport
Victoria Parade
P: (03) 6424 4033 Fax: (03) 6424 5249

HOBART
Motors Pty Ltd
179 MacQuarie Street
P: (03) 6230 7307 Fax: (03) 6230 7380

LAUNCESTON
Motors Launceston
93~95 Elizabeth Street
P: (03) 6332 9101 Fax: (03) 6334 5245

Vic. Metropolitan

BACCHUS MARCH
Alan Mance Holden Bacchus March
4 Graham Street
P: (03) 5367 4300 Fax: (03) 53674299

BERWICK
Barry Bourke Holden
755 Princes Highway
P: (03) 9707 2222 Fax: (03) 9707 3091

BUNDOORA
Watson Holden
413 Grimshaw Street
P: (03) 9467 4677 Fax: (03) 9467 7661

BURWOOD
Penfold Holden
142 Burwood Highway
P: (03) 9268 1333 Fax: (03) 9268 1335

CHELSEA
Harrison Holden
370 Nepean Highway
P: (03) 9772 2233 Fax: (03) 9772 2190

CHELTENHAM
Booran Holden
1212 Nepean Highway
P: (03) 9584 3333 Fax: (03) 9584 4285

DANDENONG
Booran Holden
17 Lonsdale Street
P: (03) 9794 5455 Fax: (03) 9792 4871

DONCASTER
Doncaster Holden
808 Doncaster Road
P: (03) 9848 1330 Fax: (03) 9848 1331

ELSTERNWICK
Summit Holden
67 Nepean Highway
P: (03) 9528 2222 Fax: (03) 9923 2633

ESSENDON
Preston Motors (Essendon) P/L
205~211 Keilor Road
P: (03) 9374 2888 Fax: (03) 9379 6754

FAWKNER
Mantello Holden
1263 Sydney Road
P: (03) 9359 1333 Fax: (03) 9359 9334

FERNTREE GULLY
Ferntree Gully Holden
980 Burwood Highway
P: (03) 9753 1222 Fax: (03) 9758 3435

FOOTSCRAY
Alan Mance Holden
435 Barkly Street
P: (03) 9396 8000 Fax: (03) 9396 8001

FRANKSTON
Bay City Holden
140 Dandenong Road
P: (03) 9784 4444 Fax: (03) 9784 4419

AUSTRALIAN HOLDEN DEALERS cont.

GEELONG
R & B Smith Holden
510 Moorabool Street
P: (03) 5222 2888 Fax: (03) 5221 3114

GEELONG
Winter & Taylor Holden
23 Cavendish Street
P: (03) 5222 1811 Fax: (03) 5221 1873

GLENHUNTLY
Booran Holden
1234 Glenhuntly Road
P: (03) 9571 9313 Fax: (03) 9571 8374

GLEN WAVERLEY
Geoff Brady Holden
565~577 Springvale Road
P: (03) 9550 5888 Fax: (03) 9550 5855

HASTINGS
John Collins Holden
2041 Frankston-Flinders Road
P: (03) 5979 4433 Fax: (03) 5975 4720

LILYDALE
Heritage Holden
344 Main Street
P: (03) 9735 5566 Fax: (03) 9735 1040

MELTON
Alan Mance Holden
1 Holland Drive
(03) 9746 9666 Fax: (03) 9746 9555

MORNINGTON
John Collins Holden
976 Nepean Highway
P: (03) 5975 4433 Fax: (03) 5975 4720

OAKLEIGH
Garry & Warren Smith
1575 Dandenong Road
P: (03) 9568 6333 Fax: (03) 9568 5691

PRESTON
Ralph D'Silva Holden
573~603 High Street
P: (03) 9471 0500 Fax: (03) 9478 4210

RINGWOOD
Patterson Cheney Holden
45~57 Maroondah Highway
P: (03) 9262 6666 Fax: (03) 9870 1113

SOUTH MELBOURNE
South City Holden
380 City Road
P: (03) 9627 3333 Fax: (03) 9682 6888

SOUTH YARRA
Penfold Holden
681 Chapel Street
P: (03) 9827 2272 Fax: (03) 9826 5328

SUNBURY
Sunbury Holden
93~95 Horne Street
P: (03) 9740 3000 Fax: (03) 9740 4777

SUNSHINE
Kevin Dennis Holden
272 Ballarat Road
P: (03) 9292 9292 Fax: (03) 9292 9200

WERRIBEE
Ballan Holden
56 Princes Highway
P: (03) 9741 2222 Fax: (03) 9742 3797

WEST MELBOURNE
Summit Holden
577 King Street
P: (03) 9329 6611 Fax: (03) 9329 1550

Vic. Country

ALEXANDRA
Alexandra Total Automotive Services
120 Grant Street
P: (03) 5772 1588 Fax: (03) 5772 1978

ARARAT
David Reid Motors
High Street
P: (03) 5352 4100 Fax: (03) 5352 4388

BAIRNSDALE
The Big Garage
628 Princes Highway
P: (03) 5152 4131 Fax: (03) 5152 5313

BALLARAT
Peter Amor Motors
211 Gillies Street
P: (03) 5339 9333 Fax: (03) 5339 9202

BENALLA
Arnott's Motors
88~90 Bridge Street
P: (03) 5762 2500 Fax: (03) 5762 1586

BENDIGO
Ron Poyser Holden
Cnr High & Myrtle Streets
P: (03) 5442 3999 Fax: (03) 5442 7766

AUSTRALIAN HOLDEN DEALERS cont.

CAMPERDOWN
Camperdown Auto Parts
96 Manifold Street
P: (03) 5593 1983 Fax: (03) 5593 1979

CASTERTON
Coxons Holden
139 Henty Street
P: (03) 5581 1166 Fax: (03) 5581 2116

CHARLTON
Walsh Motors, Charlton
70~74 High Street
P: (03) 5491 1444 Fax: (03) 5491 1984

COBRAM
Neville Mustica Motors
Murray Valley Hwy
P: (03) 5872 1666 Fax: (03) 5872 1920

COHUNA
Hare Motors Holden
105~107 King George Street
P: (03) 5456 4488 Fax: (03) 5456 4448

COLAC
Parker Bros. Motor Co
224 Murray Street
P: (03) 5231 5533 Fax: (03) 5231 3853

DAYLESFORD
K.R. Little
Vincent Street
P: (03) 5348 2248

DONALD
O.A. Shilton & Sons Pty Ltd
5 Woods Street
P: (03) 5497 1400 Fax: (03) 5497 1505

ECHUCA
Echuca Motors
1 Nothern Highway
P: (03) 5482 1522 Fax: (03) 5480 6215

EUROA
Parker Bros Auto Co. Euroa
37~41 Clifton Street
P:(03) 5795 2702 Fax: (03) 5795 1288

HAMILTON
Bloods of Hamilton
210 Gray Street
P: (03) 5572 1433 Fax: (03) 5571 1182

HOPETOUN
Hopetoun Motors
78 Lascelles Street
P: (03) 5083 3143 Fax: (03) 5083 3290

HORSHAM
Ivan Morrow Motors Pty Ltd
22 O'Callaghans Parade
P: (03) 5382 0185 Fax: (03) 5382 0459

KANIVA
Kaniva Motors
82 Commercial Street
P: (03) 5392 2300 Fax: (03) 5392 2589

KOO WEE RUP
G & J Light Mechanical Repairs P/L
Station Road
P: (03) 5997 1325

KORUMBURRA
Peter Dunlevie Holden
42 Commercial Street
P: (03) 5655 1288 Fax: (03) 5655 1839

KYABRAM
D'Alberto Holden
60 McEwen Road
P: (03) 5852 1366 Fax: (03) 5852 1337

KYNETON
Mollison Motors Pty Ltd
167 Mollison Street
P: (03) 5422 3377 Fax: (03) 5422 3501

LEONGATHA
Gleeson Holden
37~43 Bair Street
P: (03) 5662 2361 Fax: (03) 5655 1839

MANSFIELD
Martin's Garage
52~54 Chenery Street
P: (03) 5775 2610 Fax: (03) 5775 1179

MARYBOROUGH
Graham Jacka Holden
35 Nolan Street
P: (03) 5461 1011 Fax: (03) 5461 4789

MILDURA
Stuart & Harrison (Sales) Pty Ltd
24~40A Deakin Avenue
P: (03) 5023 0051 Fax: (03) 5021 3076

MORTLAKE
W. Christian (Mortlake) Pty. Ltd.
107 Dunlop Street
P: (03) 5599 2301 Fax: (03) 5599 2567

MURRAYVILLE
Peers Motors
McKenzie Street
P: (03) 5095 2081 Fax: (03) 5095 2054

AUSTRALIAN HOLDEN DEALERS cont.

NHILL
Ivan Morrow Motors Pty Ltd
71~73 Nelson Street
P: (03) 5391 1333 Fax: (03) 5391 1228

ORBOST
Merlin Motors
Stanley Street
P: (03) 5154 1909

PORTLAND
Reynolds of Portland
Henty Highway
P: (03) 5523 1688 Fax: (03) 5523 6299

QUAMBATOOK
Quambatook Auto Services
32 Gutherie Street
P: (03) 5457 1237 Fax: (03) 5457 1420

ROCHESTER
Bruce Hocking Motors Pty Ltd
85 Lowry Street
P: (03) 5484 1455 Fax: (03) 5484 1140

RUTHERGLEN
Jasper Bros Pty Ltd
62 Main Street
P: (02) 6032 8404 Fax: (02) 6032 8156

SALE
Sam Gould Holden
273 York Street
P: (03) 5144 3944 Fax: (03) 5144 6289

SEYMOUR
Neil Beer Holden
49 Emily Street
P: (03) 5792 2777 Fax: (03) 5792 4111

SHEPPARTON
Parker Bros. Auto Co.
Benalla Road
P: (03) 5822 2666 Fax: (03) 5831 2507

STAWELL
Howden Holden
72~74 Longfield Street
P: (03) 5358 1888 Fax: (03) 5358 3954

SWAN HILL
Swan Hill Holden
94~102 Campbell Street
P: (03) 5033 1800 Fax: (03) 5032 2468

TALLANGATTA
Crispin Motors
21 Towong Street
P: (02) 6071 2414 Fax: (02) 6071 2655

TERANG
W. Christian (Terang) Pty Ltd
6a Baynes Street
P: (03) 5592 1588 Fax: (03) 5592 1481

TIMBOON
Timboon Motors
56 Bailey Street
P: (03) 5598 3007 Fax: (03) 5598 3362

TRARALGON
Colin Watson Holden
Princes Highway
P: (03) 5174 8000 Fax: (03) 5175 0050

UNDERBOOL
A.J. Gloster & Sons
Cotter Street
P: (03) 5094 6291 Fax: (03) 5094 6297

WANGARATTA
Alan Capp (New Cars) Pty Ltd
29 Tone Road
P: (03) 5721 2133 Fax: (03) 5721 4626

WARRACKNABEAL
Amor Motors Aubrey Truck Sales
33 Woolcock Street
P: (03) 5394 1055 Fax: (03) 5398 1904

WARRAGUL
Barry Bourke Warragul
167 Queen Street
P: (03) 5622 0000 Fax: (03) 5622 0333

WARRNAMBOOL
Callaghan Motors Pty Ltd
133~137 Fairy Street
P: (03) 5562 3711 Fax: (03) 5562 7415

WODONGA
McRae White Motors
182 Melbourne Road
P: (02) 6056 2333 Fax: (02) 6024 7899

WONTHAGGI
Wonthaggi Holden
2 Murray Street
P: (03) 5672 1122 Fax: (03) 5672 4141

YARRAM
John Palmer Holden
150 Commercial Road
P: (03) 5182 5122 Fax: (03) 5182 6166

AUSTRALIAN HOLDEN DEALERS cont.

YARRAWONGA
Pigdons
155 Belmore Street
P: (03) 5743 1577 Fax: (03) 5744 1788

Qld. Metropolitan

ASPLEY
Zupps Aspley Pty Ltd
1454 Gympie Road
P: (07) 3246 8000 Fax: (07) 3246 8092

BROWNS PLAINS
Zupps Hillcrest
Cnr Anzac Ave & Corporate Place,
Hillcrest,
P: (07) 3802 4000 Fax: (07) 3802 4099

CAPALABA
Oldfield Holden
103 Redland Bay Road
P: (07) 3245 2200 Fax: (07) 3245 2221

INDOOROOPILLY
Westpoint Holden
440 Moggill Road
P: (07) 3878 0440 Fax: (07) 3878 1340

IPSWICH
Ross Llewellyn Holden
246 Brisbane Road
P: (07) 3282 2922 Fax: (07) 3282 6359

LAIDLEY
Buhse's Garage
5 Spicer Street
P: (07) 5465 1406 Fax: (07) 5465 1706

MOOROOKA
John Sivyer Holden
1060 Ipswich Road
P: (07) 3892 3344 Fax: (07) 3848 8866

MT. GRAVATT
Zupps Motors Pty Ltd
1310 Logan Road
P: (07) 3877 0000 Fax: (07) 3877 0063

NEWSTEAD
Eagers Holden
95 Breakfast Creek Road
P: (07) 3364 1199 Fax: (07) 3364 1060

PETRIE
Village Motors
1059 Gympie Road
P: (07) 3285 2244 Fax: (07) 3285 1975

REDCLIFFE
Village Holden
425 Elizabeth Avenue
P: (07) 3883 0900 Fax: (07) 3883 2711

SPRINGWOOD
Motorama Holden
3455 Pacific Highway
P: (07) 3804 4888 Fax: (07) 3208 7018

WINDSOR
Eagers Holden
143 Newmarket Road
P: (07) 3357 6711 Fax: (07) 3357 5403

WOOLLOONGABBA
Armstrong Holden
73 Ipswich Road
P: (07) 3891 5522 Fax: (07) 3891 5146

WYNNUM
Doug Barton Holden
200 Tingal Road
P: (07) 3396 7777 Fax: (07) 3393 3593

Qld. Country

ATHERTON
Redding Motors Pty Ltd
2 Cook Street
P: (07) 4091 1344 Fax: (07) 4091 2039

AYR
Honeycombes Sales & Service
213~217 Queen Street
P: (07) 4783 2344 Fax: (07) 4783 2079

BEAUDESERT
Zupps Beaudesert
57 Brisbane Street
P: (07) 5541 2000 Fax: (07) 5541 3368

BILOELA
Andersons Auto City
Dawson Highway
P: (07) 4992 2833 Fax: (07) 4992 3066

BOWEN
McDermott Holden
98 Herbert Street
P: (07) 4786 1430 Fax: (07) 4786 2903

AUSTRALIAN HOLDEN DEALERS cont.

BUNDABERG
Ross Gray Holden
Takalvan Street
P: (07) 4150 1333 Fax: (07) 4150 1318

CABOOLTURE
Beecham Holden
Bribie Island Road
P: (07) 5495 1477 Fax: (07) 5495 2839

CAIRNS
Ireland Holden
227~233 Mulgrave Road
P: (07) 4052 3666 Fax: (07) 4052 3606

CALOUNDRA
Caloundra City Holden
45 Caloundra Road
P: (07) 5491 5522 Fax: (07) 5491 8016

CHARTERS TOWERS
Peters Holden
57 Mosman Street
P: (07) 4787 1177 Fax: (07) 4787 4858

CHARLEVILLE
Alan Dobbin Holden
129 Alfred Street
P: (07) 4654 1737 Fax: (07) 4654 3254

CHINCHILLA
Ainsworth Motors & Machinery Pty Ltd
55 Chinchilla Street
P: (07) 4662 7286 Fax: (07) 4662 7197

DALBY
Johnson's Holden
36 Drayton Street
P: (07) 4662 2422 Fax: (07) 4662 4311

EMERALD
Emerald Holden
Hospital Road
P: (07) 4983 9888 Fax: (07) 4983 9889

GATTON
Gatton Auto Centre
67 Railway Street
P: (07) 5462 1633 Fax: (07) 5462 1980

GLADSTONE
Andersons Auto City
56 Yarroon Street
P: (07) 4972 1177 Fax: (07) 4972 9141

GOONDIWINDI
Goondiwindi Holden
45 Russell Street
P: (07) 4671 0266 Fax: (07) 4671 0288

GYMPIE
Madills Holden
35 Mellor Street
P: (07) 5480 5500 Fax: (07) 5482 2672

HERVEY BAY
Whitaker Holden
96 Torquay Road
P: (07) 4128 1722

INGHAM
Devietti Holden
99 Lannercost Street
P: (07) 4776 1599 Fax: (07) 4776 3547

INNISFAIL
I.C. Taylor Pty Ltd
117 Edith Street
P: (07) 4061 1577 Fax: (07) 4061 3963

JULIA CREEK
Julia Creek Motors Pty Ltd
Burke Street
P: (07) 4746 7155 Fax: (07) 4746 7197

KILCOY
Hobart's Garage
58 Mary Street
P: (07) 5497 1204 Fax: (07) 5497 1204

KINGAROY
John Dundas Pty Ltd
79 Kingaroy Street
P: (07) 4162 1722 Fax: (07) 4162 3756

LONGREACH
Longreach Motors
33 Swan Street
P: (07) 4658 1700 Fax: (07) 4658 1857

MACKAY
Pioneer Holden
Cnr Gordon & Wellington Streets
P: (07) 4969 4299 Fax: (07) 4969 4288

MAROOCHYDORE
Sunco Holden
Wises Road
P: (07) 5443 7644 Fax: (07) 5443 7645

MARYBOROUGH
Whitaker Holden
109~111 March Street
P: (07) 4122 2255 Fax: (07) 4122 6222

AUSTRALIAN HOLDEN DEALERS cont.

MOUNTISA
Bruce Marles Motor City
Marian Street
P: (07) 4743 3044 Fax: (07) 4743 8466

MURGON
Clifton Motors
Macalister Street
P: (07) 4168 1066 Fax: (07) 4168 1947

NAMBOUR
Sunco
Bruce Highway
P: (07) 5451 2000 Fax: (07) 5451 2099

NANANGO
Nanango Motors Pty Ltd
102 Drayton Street
P: (07) 4163 1108 Fax: (07) 4163 1108

NOOSAVILLE
Madill's
Lot 1 Lionel Donovan Drive
P: (07) 5470 0700 Fax: (07) 5474 0073

PROSERPINE
Crossley Car Sales Whitsunday Pty Ltd
162~164 Main Street
P: (07) 4945 1822 Fax: (07) 4945 2022

ROBINA
Robina Holden
16 Brabham Circuit
P: (07) 5575 0500 Fax: (07) 5562 1072

ROCKHAMPTON
Lawrence's
327 Richardson Road
P: (07) 4930 5111 Fax: (07) 4930 5112

ROMA
Maranoa Multi Agencies
Bowen Street
P: (07) 4622 2900 Fax: (07) 4622 1832

SOUTHPORT
Lockhart Holden
Cnr Nerang Road & Olsen Avenue
P: (07) 5597 2900 Fax: (07) 5597 2542

SPRINGSURE
Springsure Motors
Eclipse Street
P: (07) 4984 1177 Fax: (07) 4984 1361

ST. GEORGE
Halpin Motors
39~41 Grey Street
P: (07) 4625 5466 Fax: (07) 4625 5855

STANTHORPE
Central Motors
42 Maryland Street
P: (07) 4681 2200 Fax: (07) 4681 1479

TOOWOOMBA
Toowoomba Holden
Cnr James & Hume Streets
P: (07) 4690 0900 Fax: (07) 4690 0909

TOWNSVILLE
Tony Ireland Holden
87~91 Charters Towers Road
P: (07) 4726 7777 Fax: (07) 4721 1486

TULLY
Island Coast Holden
Bruce Highway
P: (07) 4068 1288 Fax: (07) 4068 2145

WARWICK
Deighton Motors Pty Ltd
Grafton Street
P: (07) 4661 2266 Fax: (07) 4661 1275

N.T.

ALICE SPRINGS
Peter Kittle Holden
46 Stuart Highway
P: (08) 8952 5500 Fax: (08) 8953 0847

DARWIN
Kerry Holden
21~25 Stuart Highway
P: (08) 8980 8080 Fax: (08) 8980 8081

KATHERINE
Wyn Holden
Lot 2399 Victoria Highway
P: (08) (08) 8972 2422 Fax: (08) 8971 0571

TENNANT CREEK
Kittles Holden
Paterson Street
P: (08) 8962 2251 Fax: (08) 8962 2527

S.A. Metropolitan

ADELAIDE
City Holden
223 Grenfell Street
P: (08) 8223 7666 Fax: (08) 8359 2588

AUSTRALIAN HOLDEN DEALERS cont.

ELIZABETH
Peter Page Holden
17 Elizabeth Way
P: (08) 8255 1288 Fax: (08) 8255 9260

HILLCREST
City Holden
327~329 Main North East Road
P: (08) 8261 5855 Fax: (08) 8369 0066

MALVERN
Claridge Holden
361~367 Unley Road
P: (08) 8272 1600 Fax: (08) 8373 0057

PORT ADELAIDE
Smiths of Port Adelaide
271 Commercial Road
P: (08) 8341 2255 Fax: (08) 8341 2233

PROSPECT
Metro Holden
84~88 Main North Road
P:(08) 8343 5000 Fax: (08) 8344 9670

REYNELLA
Southgate Holden
49~59 Main South Road
P: (08) 8381 9555 Fax: (08) 8381 6274

ROSE PARK
City Holden
14 Kensington Road
P: (08) 8334 4666 Fax: (08) 8334 4610

SOMERTON PARK
Hamilton Holden
278~288 Brighton Road
P: (08) 8179 4300 Fax: (08) 8358 3957

THEBARTON
Metro Holden
1 Port Road
P: (08) 8354 9555 Fax: (08) 8443 6855

VALLEY VIEW
Plaza Holden
817~839 North East Road
P: (08) 8263 4922 Fax: (08) 8265 5200

S.A. Country

BALAKLAVA
Balaklava Motors
4 Wallace Street
P: (08) 8862 1030 Fax: (08) 8862 2000

BERRI
Rosenthal Bros Pty Ltd
Vaughan Terrace
P: (08) 8582 3644 Fax: (08) 8582 3515

BORDERTOWN
Farmers Centre
South Terrace
P: (08) 8752 0266 Fax: (08) 8752 0233

CEDUNA
Beck Motors Pty Ltd
Poynton Street
P: (08) 8625 2616 Fax: (08) 8625 3201

CLARE
Mid North Motor Company
7 Old North Road
P: (08) 8842 2200 Fax: (08) 8842 2886

CLEVE
Pringles Ag. Plus
Rudall Road
P: (08) 8628 2150 Fax: (08) 8628 2537

CRYSTAL BROOK
Crouch Rural Pty. Ltd
26 Brandis Street
P: (08) 8636 2257 Fax: (08) 8636 2088

GAWLER
Steinborner Holden
Cnr Murray & Bridge Sts
P: (08) 8522 4222 Fax: (08) 8522 4898

KADINA
J.H. Rosewarne Pty Ltd
Graves Street
P: (08) 8821 1111 Fax: (08) 8821 1686

KEITH
Farmers Centre
McBain Street
P: (08) 8755 3222 Fax: (08) 8755 3211

KINGSTON
Lecornu's Service Garage
Agnes Street
P: (08) 8767 2424 Fax: (08) 8767 2533

LOXTON
Flight Motors Pty Ltd
Bookpurnong Terrace
P: (08) 8584 7277 Fax: (08) 8584 5937

AUSTRALIAN HOLDEN DEALERS cont.

MINLATON
Southway
9 Fifth Street
P: (08) 8853 2322 Fax: (08) 8853 2451

MENINGIE
Peter Hood Holden
Cnr Princes Highway & Coonalpyn Road
P: (08) 8575 1109 Fax: (08) 8575 1537

MT. BARKER
Gilbert Motors
57 Adelaide Road
P: (08) 8391 1500 Fax: (08) 8398 2124

MT. GAMBIER
O.G. Roberts & Co
Jubilee Highway West
P: (08) 8724 1111 Fax: (08) 8724 1100

MURRAY BRIDGE
Dutton Motors Pty Ltd
7 Adelaide Road
P: (08) 8532 1999 Fax: (08) 8531 0599

NARACOORTE
Kingcraig Motors Pty Ltd
158~164 Smith Street
P: (08) 8762 1555 Fax: (08) 8762 1806

PORT AUGUSTA
Augusta Motor Company Pty Ltd
38 Stirling Road
P: (08) 8641 0488 Fax: (08) 8642 4300

PORT LINCOLN
City Motors
King Street
P: (08) 8682 1100 Fax: (08) 8682 4734

PORT PIRIE
Spencer Holden
50 Ellen Street
P: (08) 8632 3888 Fax: (08) 8632 6405

RENMARK
Rosenthal Motors Pty Ltd
Ral Ral Avenue
P: (08) 8586 6626 Fax: (08) 8586 4040

STRATHALBYN
Gilbert Holden - Strathalbyn
High Street
P: (08) 8536 2066 Fax: (08) 8536 2672

TANUNDA
Hage & Co Pty Ltd
50 Murray Street
P: (08) 8563 2123 Fax: (08) 8563 3488

VICTOR HARBOR
Southern Motors Holden
5 Victoria Street
P: (08) 8552 1255 Fax: (08) 8552 2788

WAIKERIE
Riverside Holden
6 Crush Terrace
P: (08) 8541 2900 Fax: (08) 8541 3325

WHYALLA
McLeods Whyalla Motor Company
64 Essington Lewis Avenue
P: (08) 8645 7388 Fax: (08) 8645 5512

YANKALILLA
Martin Motors Pty Ltd
Main Street
P: (08) 8558 2052 Fax: (08) 8558 2911

W.A. Metropolitan

CANNINGTON
Brian Gardner Holden
1308~1324 Albany Hwy
P: (08) 9356 9000 Fax: (08) 9458 9144

FREMANTLE
Shacks Holden
64 Queen Victoria Street
P: (08) 9432 9432 Fax: (08) 9432 9456

GOSNELLS
Gibbons Holden
2325 Albany Highway
P: (08) 9398 2211 Fax: (08) 9398 5683

MELVILLE
Melville Holden
532~540 Canning Highway
P: (08) 9333 5333 Fax: (08) 9333 5300

MIDLAND
Goldy Holden
161 Great Eastern Highway
P: (08) 9274 8000 Fax: (08) 9274 6042

AUSTRALIAN HOLDEN DEALERS cont.

MORLEY
Metro Motors Holden
212 Walter Road West
P: (08) 9449 3522 Fax: (08) 9449 3596

OSBORNE PARK
North City Holden
Cnr Scarborough Beach Rd & Harborne St
P: (08) 9273 2222 Fax: (08) 9273 2220

PERTH
City Motors
505 Newcastle Street
P: (08) 9422 7777 Fax: (08) 9422 7630

ROCKINGHAM
Rockingham Holden
20 Smeaton Way
P: (08) 9550 9550 Fax: (08) 9550 9599

VICTORIA PARK
Youngs Holden
529 Albany Highway
P: (08) 9449 9449 Fax: (08) 9449 9494

WANNEROO
Phoenix Holden
5 Berriman Drive
P: (08) 9409 9200 Fax: (08) 9309 2140

W.A. Country

ALBANY
Albany City Holden
92~98 Earl Street
P: (08) 9842 8000 Fax: (08) 9841 8623

BRIDGETOWN
Kordics Bridgetown
183 Hampton Street
P: (08) 9761 1377 Fax: (08) 9761 2151

BROOKTON
Coote Motors
1 Robinson Road
P: (08) 9642 1108 Fax: (08) 9642 1003

BROOME
Norwest Holden
7 McPherson Street
P: (08) 9192 1277 Fax: (08) 9193 5249

BUNBURY
Bunbury Holden
3 Sandridge Road
P: (08) 9791 3899 Fax: (08) 9791 2990

BUSSELTON
Fennessy's
4~8 Bussel Hwy
P: (08) 9752 1577 Fax: (08) 9752 4080

CARNAMAH
T & H Walton Stores Pty Ltd
Robertson Street
P: (08) 9951 1130 Fax: (08) 9951 1082

CARNARVON
North West Autos
229 Robinson Street
P: (08) 9941 1159 Fax: (08) 9941 1363

COLLIE
Station Motors
84 Throssell Street
P: (08) 9734 1855 Fax: (08) 9734 1913

ESPERANCE
Dempster Holden
Norseman Road
P: (08) 9071 1155 Fax: (08) 9071 3799

GERALDTON
Young Motors
34 Cathedral Avenue
P: (08) 9921 1088 Fax: (08) 9964 1157

GNOWANGERUP
Umtali Nominees Pty Ltd
10 Youngenup Road
P: (08) 9827 1207 Fax: (08) 9827 1444

HARVEY
Stockman Holden
111 Uduc Road
P: (08) 9729 3333 Fax: (08) 9729 1140

KALGOORLIE
Golden City Holden
114 Boulder Road
P: (08) 9021 1699 Fax: (08) 9021 5737

KARRATHA
Moxham Motors
Lot 4551 Balmoral Road
P: (08) 9144 1225 Fax: (08) 9144 1258

AUSTRALIAN HOLDEN DEALERS cont.

KATANNING
Edwards Holden
159 Clive Street
P: (08) 9821 2388 Fax: (08) 9821 2429

KELLERBERRIN
Dowding Motors
1 Mitchell Street
P: (08) 9045 4141 Fax: (08) 9045 4466

KUNUNURRA
Argyle Holden
Lot 231 Bloodwood Drive
P: (08) 9168 2236 Fax: (08) 9169 1124

MANDURAH
Mandurah Holden
53 Pinjarra Rd
P: (08) 9535 8777 Fax: (08) 9535 8822

MANJIMUP
Manjimup Automotive Services
Pritchard Street
P: (08) 9771 1388 Fax: (08) 9777 1214

MOORA
Frank Lewis Holden
92 Gardiner Street
P: (08) 9651 1408 Fax: (08) 9651 1724

NAREMBEEN
Aquip Machinery
20 Churchill Avenue
P: (08) 9064 7214 Fax: (08) 9064 7065

NORTHAM
Withnell Motors
58 Fitzgerald Street
P: (08) 9622 5073 Fax: (08) 9622 3664

PORT HEDLAND
Moxham Motors
15 Anderson Street
P:(08) 9173 3660 Fax: (08) 9144 1258

NEW ZEALAND HOLDEN DEALERS

Auckland Metropolitan

HENDERSON
West City Holden
435 Great North Road
P: (09) 836 0097 Fax: (09) 837 5291

MANUKAU
Davie Motors Limited
58 Cavendish Drive
P: (09) 262 1012 Fax: (09) 262 1011

NEWMARKET
Schofield & Co. Limited
50 Great South Road
P: (09) 520 6369 Fax: (09) 524 1500

PANMURE
Moyes Motor Group Limited
510 Ellerslie/Panmure Highway
P: (09) 527 1200 Fax: (09) 527 8314

TAKAPUNA
Giltrap Holden
Wairau Road
P: (09) 444 8114 Fax: (09) 444 8008

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ALEXANDRA
Currie Motors
65 Centennial Avenue
P: (03) 448 6989 Fax: (03) 448 9384

AMBERLEY
Arthur Burke Limited
Markham Street
P: (03) 314 8121 Fax: (03) 314 8281

ASHBURTON
Smallbone Brothers Limited
Cnr. Burnett & Cass Streets
P: (03) 308 7159 Fax: (03) 308 5551

BLENHEIM
Wadsco Motors Limited
55-59 Scott Street
P: (03) 578 5199 Fax: (03) 578 2572

CHRISTCHURCH
Blackwell Motors Limited
Cnr. Cashell/Madras Streets
P: (03) 379 5500 Fax: (03) 366 4683

DUNEDIN
Cooke Howlison Limited
484 Andersons Bay Road
P: (03) 456 0570 Fax: (03) 455 5668

DARGAVILLE
Marcel Motors Limited
34 Victoria Street
P: (09) 439 7399 Fax: (09) 439 7399

GISBORNE
Enterprise Cars (1992) Limited
323 Gladstone Street
P: (06) 867 8368 Fax: (06) 867 1280

HAMILTON
Ebbett Waikato Limited
Anglesea Street
P: (07) 838 0949 Fax: (07) 838 3380

HASTINGS
Karamu Holden
Cnr. Karamu Road & Albert Street
P: (06) 876 6700 Fax: (06) 876 6664

HAWERA
Moller Johnson Motors (Hawera) Limited
39-49 Regent Street
P: (06) 278 7166 Fax: (06) 278 5054

INVERCARGILL
GWD-Russells Limited
22 Yarrow Street
P: (03) 218 2149 Fax: (03) 218 3309

KAIKOHE
Bay Motors Limited
Wihongi Street
P: (09) 401 1860 Fax: (09) 401 0883

KAITAIA
Jim Crene Motors Limited
Melba Street
P: (09) 408 1310 Fax: (09) 408 1311

LEVIN
Horowhenua Motor Co. Limited
1-11 Exeter Street
P: (06) 368 7169 Fax: (06) 368 8536

LOWER HUTT
Brendan Foot Motors Limited
16-18 Railway Avenue
P: (04) 587 0005 Fax: (04) 566 2311

MASTERTON
Wagg & Harcombe Limited
87-93 Dixon Street
P: (06) 377 5169 Fax: (06) 378 8840

MATAMATA
Matamata Motor Group Limited
2 Arawa Street
P: (07) 888 7059 Fax: (07) 888 5709

MORRINSVILLE
Nicholson United Autos
Thames Street
P: (07) 889 7042 Fax: (07) 889 3529

NEW ZEALAND HOLDEN DEALERS cont.

NAPIER
Karamu Holden
Cnr Wellesley Rd & Thakeray St
P: (06) 874 3033 Fax: (06) 834 1454

NELSON
Nelson Bays Holden
2 Selwyn Place
P: (03) 545 7222 Fax: (03) 545 6057

NEW PLYMOUTH
Auto City
86 Molesworth Street
P: (06) 758 0919 Fax: (06) 758 5330

OAMARU
North Otago Motor Group Limited
24-30 Severn Street
P: (03) 434 5099 Fax: (03) 434 9983

OTOROHANGA
Pat Prescott Limited
205 Maniapoto Street
P: (07) 873 7119 Fax: (07) 873 7156

PAEROA
Linn Motors Limited
10-12 Belmont Road
P: (07) 862 8715 Fax: (07) 862 8711

PAHIATUA
Jones Motors Limited
34 Main Street
P: (06) 376 7524 Fax: (06) 376 7192

PALMERSTON NORTH
Robertson Motors
200 Rangitikei Street
P: (06) 358 1062 Fax: (06) 359 0303

PARAPARAUMU
Guy Weaver's Auto Village
Main Road
P: (04) 298 8089 Fax: (04) 298 7186

PUKEKOHE
Counties Motorcourt Limited
Cnr. Edinburgh & Tobin Streets
P: (09) 238 3259 Fax: (09) 238 3298

ROTORUA
Shorland Slater Limited
Old Taupo Road
P: (07) 348 3179 Fax: (07) 347 1503

STRATFORD
Ansford Johnson Limited
369 Broadway
P: (06) 765 6119 Fax: (06) 765 7410

TAUPO
Taupo Holden
Ruapehu Street
P: (07) 378 4130 Fax: (07) 378 0357

TAUMARANUI
Turaki Motors Limited
Hakiaha Street
P: (07) 895 7009 Fax: (07) 895 8909

TAURANGA
Ebbett Tauranga
Cnr. Wharf Street & Cameron Road
P: (07) 578 2843 Fax: (07) 578 6044

TE AROHA
Summit Motor Co. Limited
Kenrick Street
P: (07) 884 8174 Fax: (07) 884 8133

TE AWAMUTU
Rosetown Motors Limited
Cnr. Churchill & Mahoe Streets
P: (07) 871 5143 Fax: (07) 871 5045

TE PUKE
Bob Batchelor Motors Limited
Jellicoe Street
P: (07) 573 9781 Fax: (07) 573 6057

THAMES
Linn Motors
429 Pollen Street
P: (07) 868 9591 Fax: (07) 868 9595

TIMARU
Hervey Motors Limited
6 Sefton Street
P: (03) 684 7179 Fax: (03) 684 7176

UPPER HUTT
Twin Lakes Motor Company
Fergusson Drive
P: (04) 528 5609 Fax: (04) 527 8390

WANGANUI
Bob Burgess Motors Limited
1 Purnell Street
P: (06) 345 5588 Fax: (06) 345 5584

WELLINGTON
Williams & Adams
72-82 Taranaki Street
P: (04) 801 6777 Fax: (04) 385 7437

WHAKATANE
Harts Limited
Commerce Street
P: (07) 308 6334 Fax: (07) 307 1536

WHANGAREI
Mark Cromie Holden
5-13 Hannah Street
P: (09) 438 3199 Fax: (09) 438 2646

CHAPTER 10

Tow and load

Page
10-2 Loading the vehicle
10-3 Towing

LOADING THE VEHICLE

Overloading

Overloading is a safety hazard and could shorten the life of your vehicle or its parts. Never exceed the specified loads for your vehicle or trailer.

Kerb weight

Kerb weight is the mass of the unoccupied vehicle in running order, unladen, with all fluid reservoirs filled to nominal capacity (including fuel) and with all standard equipment fitted.

- Kerb weight for manual transmission = 985 kg
- Kerb weight for automatic transmission = 1000 kg

Carrying capacity

The recommended carrying capacity of your vehicle is the total amount that you may add to the kerb weight. This includes:

- up to 5 occupants
- luggage
- any fixtures used to secure the luggage (ie. roof racks).
- Carrying capacity = 408 kg

Gross Vehicle Mass (GVM)

The GVM is the maximum vehicle weight allowed. This includes luggage, passengers, roof load and a full tank of fuel. If you are towing, the load on the tow ball must also be included.

- GVM = 1430 kg

Rear axle load

The rear axle load is the maximum allowable load on the ground at the rear axles.

Note: Take the tow ball load into account when determining the rear axle load.

- Maximum rear axle load = 750 kg

WARNING:

Gas cylinders can leak, creating a risk of fire or explosion. As a precaution, ensure adequate ventilation when carrying gas cylinders. They must be restrained from rolling around, and where possible, placed in the load area of the vehicle. It is recommended that if gas cylinders are frequently transported, a purpose-built carrying compartment be used. Transportation of gas cylinders is regulated by legislation in some states.

LOADING THE VEHICLE cont.

Roof loads

For safety reasons and to avoid damaging the roof, only the roof racks approved by Holden for your vehicle should be used.

The maximum allowable load on the roof rails is 50 kg. The roof racks approved by Holden for your vehicle weigh 7 kg, allowing a further 43 kg to be loaded.

Roof loads alter the handling of a vehicle due to a change in the centre of gravity. When carrying loads on the roof, avoid swerving or sharp steering. To maximise safety, distribute the load evenly and ensure that all loads are adequately secured. Increase tyre pressures to the value given for a full load and do not exceed 120 km/h.

The mass of the roof racks and their contents must be considered when evaluating the vehicle's overall loaded condition.

- Roof rail load = 43 kg (with Holden approved roof racks)

Vehicle loads

When towing, you must take into account the additional load that the trailer puts on the vehicle. Particular attention must be given to how the trailer changes the loads at the front and rear axles of the vehicle.

When the vehicle and trailer are at or near full load, it may be necessary to use a public weighbridge to check that none of the load capacities have been exceeded.

If you load your vehicle other than to these recommendations, then you should ensure that the GVM and maximum rear axle loads are not exceeded.

Accessories (bull bars, driving lamps, insect screens etc.)

When fitting accessories, take care not to restrict airflow through the air conditioner condenser or the radiator. Restricted airflow can result in engine overheating and poor air conditioning performance.

The mass of all accessories must be considered when evaluating the vehicle's overall loaded condition.

Note: Bull bars can affect airbag operation. Refer to Chapter 6, page 15.

TOWING

Towing equipment

Your vehicle is designed primarily as a passenger vehicle, so handling, durability and economy may be affected by towing. Before attempting any towing, ensure that the correct equipment is fitted.

The following towing equipment is available from your Holden Retailer:

- tow bar
- trailer wiring
- trailer brakes.

Note: Holden towing equipment is recommended where it is available. Where it is not available, no recommendation is made as to the make of equipment which should be used. Holden will not accept liability for defects occurring in towing equipment not recommended by Holden or for defects in the vehicle arising from the use of such equipment or for loss or injury caused by the use of such equipment. The use of such equipment may void your New Vehicle Warranty to the extent that Holden considers the non-recommended equipment affects the specifications or quality of your Holden vehicle.

The towing capacity when trailer brakes are fitted: 800 kg

The towing capacity without trailer brakes: 350 kg

In higher elevations and / or mountainous terrain, the maximum towing and loading limits should be reduced.

Gross Towed Mass (GTM)

The GTM is the maximum allowable mass of a trailer (and load) that may be towed by the vehicle.

Running-in before towing

Holden recommends that your new vehicle is driven for at least 1,500 km before it is used for towing. If you must tow in the first 1,500 km, do not exceed 80 km/h.

Note: This also applies if the vehicle is fitted with a new or reconditioned engine, transmission or axle.

Country / state regulations

There are various regulations related to towing which can vary between different countries and states. These regulations normally cover the maximum allowable trailer mass and driving speeds. You must be familiar with the regulations for each of the states in which you intend to tow. Details of the regulations are available from the relevant state road traffic authorities or motoring associations.

TOWING cont.

Tow ball load

The tow ball load is the weight on the tow ball (and therefore the towing vehicle) when the packed trailer is hitched.

It must not exceed or drop below the following:

- a loaded trailer weighing up to 625 kg – at least 4% of the loaded trailer weight but not more than 80 kg
- a loaded trailer weighing over 625 kg – at least 25 kg but not more than 80 kg.

The tow ball load can be adjusted by moving the contents of the trailer to shift the load position.

If the tow ball load is too light (ie. less than 4% of the loaded trailer weight) or too heavy (ie. greater than 80 kg), the steering and handling of the vehicle will be greatly impaired. It is desirable to aim for the maximum, rather than the minimum tow ball load.

As a general guideline, for single axle trailers the tow ball load should be approximately 10% of the loaded trailer mass. For heavy trailers with more than one axle, the load should be 5-10 % of the loaded trailer mass.

When measuring the tow ball load, make sure that the drawbar of the loaded trailer is at the same height as it will be when the trailer is mounted on the vehicle. This is particularly important for a trailer with tandem axles.

Safe towing tips

Your vehicle will handle differently when towing. It's a good idea to make a couple of short distance trips with the trailer before you set off on the big one.

Have your vehicle correctly maintained and serviced.

Have your trailer maintained and serviced, with particular attention given to condition of brakes, tyres, suspension, wheel bearings, towing coupling and lighting.

You should have an extended-arm mirror on both sides of your vehicle as necessary.

Headlights may need adjusting after the loaded trailer has been hitched, particularly if a load distribution hitch is not used.

Use a lower gear, rather than your brakes when descending steep hills.

If your trailer moves off the road behind you, allow the left wheels of your vehicle to move off as well. When it is safe to do so, carefully steer back on to the road. A sudden attempt to steer back could make you swerve dangerously.

TOWING cont.

Towing precautions

- Your vehicle will handle differently when towing, so it is a good idea to make a couple of short-distance trips with the trailer to become familiar with the changed handling characteristics.
- Ensure that your vehicle is correctly maintained and serviced.
- Ensure that your trailer is maintained and serviced, with particular attention to the condition of the brakes, tyres, suspension, wheel bearings, lighting and towing equipment.
- You should not exceed 80 km/h when towing. Driving speeds should be reduced when towing.
- Your tyres should be inflated to the maximum recommended pressure shown on the tyre placard, when towing.
- Loads should be should be placed in the centre of the trailer if possible (ie. above the axle) and secured so that they cannot slip.
- The brakes on the trailer must be designed to cope with the braking requirements of that trailer under all towing conditions without adversely affecting the brakes on the vehicle.
- Make sure that you have enough room when cornering and avoid sudden manoeuvres.
- Use extended-arm rear vision mirrors when the trailer is wider than the towing vehicle.
- In the case of a trailer with low directional stability, it is advisable to use a stabiliser to dampen any rolling motion.
- The cooling fan is driven electrically and so is not dependant on engine speed. At high engine speeds a lot of heat is produced and at low engine speeds less heat is produced. For this reason, when driving uphill, do not shift down into a lower gear (which will increase engine speed) when the vehicle can climb the hill in the higher gear.
- Before descending steep hills, slow down and select a lower gear.
- Headlights may require adjustment after the loaded trailer has been hitched.
- Whenever a towbar is removed, be certain to have any mounting holes in the underbody properly sealed to prevent the possible entry of exhaust fumes, dust and water.
- Ensure that no part of the tow bar obscures the rear licence plate.
- Remove the towbar tongue when it is not in use.
- More frequent vehicle maintenance is required when using your vehicle to tow a trailer. Refer to Chapter 12.

CHAPTER 11

Cleaning

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INTERIOR CLEANING

WARNING:

Many cleaners may be toxic, flammable or may damage the interior. When cleaning the interior, avoid volatile cleaners such as acetone, lacquer thinners, enamel reducers, nail polish removers, or cleaners such as laundry soaps, bleaches or reducing agents. Never use carbon tetrachloride, gasoline or naphtha for any cleaning purpose. Be sure the vehicle is well ventilated while using any cleaners and always follow the cleaning manufacturer's recommendations.

Care and cleaning of upholstery

Dust and dirt which accumulate on upholstery should be removed every few weeks – more often with constant driving. This can be done readily with a vacuum cleaner. Before attempting to remove spots and stains, it is necessary to determine as accurately as possible:

- The type of fabric.
- The nature and age of the stain.
- The effect of the stain removal agent upon the colour, structure and general appearance of the upholstery.

It is essential that stains be removed as soon as possible after they have been made. If they are allowed to remain on the fabric for any length of time they very often become oxidised or set, and removal becomes difficult, if not impossible.

Cleaning PVC coated fabrics

Vinyl (PVC) coated fabrics are used for seating, head linings and auxiliary trimming. The grades used vary according to their function. PVC fabrics are generally made by coating fabric with synthetic resins. Care of PVC fabrics is a relatively simple but important matter. The surface should be wiped over with a dry cloth during the regular cleaning of the vehicle.

Should dirt accumulate and become embedded in the material pattern, the following procedure is recommended:

1. Using lukewarm water and soap, or Holden Velour Fabric and Vinyl Cleaner, work up thick suds on a piece of cheesecloth, and apply to the surface. A soft bristle brush can be used to remove stubborn stains or dirt embedded in the grain of the material.
2. Repeat using only a damp cloth and no soap.
3. Wipe dry with a soft cloth. These cleaning instructions also apply to the rubber floor mats.

INTERIOR CLEANING

Cleaning cloth trim

Where the seats in your vehicle are upholstered with cloth, the following instructions should be observed:

- Most loose dirt and dust can be removed by a vacuum cleaner or soft brush.
- Do not use a whisk broom or a coarse hair brush.
- If normal soiling should take place it is recommended that the fabric be sponged lightly with warm water containing a detergent and a small amount of ammonia. The fabric should then be rubbed lightly, and if necessary, sponged again to remove anything stubborn. Soak up excess fluid with a dry cloth. Holden Velour Fabric and Vinyl Cleaner may be used sparingly.

Vehicles with air bags

Use only a dry cloth or mild cleaner to clean the steering wheel and dashboard. Do not use any aggressive cleaning agents.

Cleaning carpet

Thoroughly brush or vacuum the carpet. In many instances the carpet may require no further cleaning. If the carpet is extremely soiled, thoroughly vacuum it to remove loose dirt then, using Holden Velour Fabric and Vinyl Cleaner, clean approximately one square foot at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner.

Cleaning seat belts

Cleaning of seat belts can be carried out by using a mild non-abrasive soap and lukewarm water. After washing be sure to thoroughly sponge the washing solution out of the belts.

WARNING:

Do not bleach or dye seat belts since this may severely weaken them.

Cleaning interior glass

The interior glass area of the vehicle should be cleaned using Holden Glass Cleaner with a clean soft cloth. Care must be taken when cleaning inside the rear window so as not to damage the demister.

Never use abrasive cleaners on any vehicle glass, as they may cause scratches.

CARING FOR PAINT

To help preserve that shiny new vehicle finish, special attention should be given to correctly treating those conditions that can damage the paint.

Road bloom: If, over a long period of time, oils, dirt, exhaust and other pollutants are allowed to build up, they may combine to affect the paint finish.

Etching: Tree sap, bird droppings, salt water and other natural deposits can, if allowed to stay on the paint, leave an etching or scarring.

Pitting: Tar spots and some industrial fallout can react chemically and may cause pitting in the surface of the paint.

Paint inspection

Regular inspection of the vehicle should be made for scratch marks, cracks or damaged areas, all of which could develop rust. Any deep scratches, cracks or breakdown in the finish should be repaired without delay. Care should be taken to ensure that any rusting is counteracted immediately, otherwise rust 'creep' will extend beyond the damaged area, particularly in tropical or coastal areas, where the moist, or salt-laden air accelerates rusting. The paint finish of the vehicle gives a very high degree of protection against the weather, but it should be realised that wear and deterioration occur when the vehicle is exposed to elements for prolonged periods. The vehicle therefore should be garaged whenever possible.

To prevent damage of the paint surface, foreign matter should always be removed as soon as possible.

It is recommended that acidic foreign matter such as bird droppings be removed within 24 hours.

The way the paint keeps its condition over time can be assisted by you. The easiest way to keep that paint looking bright and shiny is to keep it clean. A wash once a week will do wonders. However, it must be done correctly.

Washing your vehicle

1. Never use an automatic wash that has anything that touches the paint other than water.
2. Wash your vehicle once a week to remove any build up of road grime that may have been deposited on your paint.
3. Find a cool, shady spot to wash it. Do not wash it in direct sunlight.
4. Hose the vehicle down from top to bottom with lots of cold water. This removes any grit or other loose particles and substances. Do not use a sponge or cloth yet.
5. Fill a bucket with lukewarm water and add no more than two capfuls of gentle detergent. Do not use hot water, strong soap or chemical detergents.
6. Remove bird droppings by soaking the area with a wet sponge for several minutes before washing the vehicle. If they persist, use a solution of 1 litre of water to 110 grams of dissolved baking soda (Bicarbonate of Soda). Flush the washed areas with clean water.
7. Starting with the roof, use a clean sponge to clean a small section at a time. Do not allow liquid to dry before rinsing off that section with clean water. When you have completed each section, rinse the whole vehicle again with cold water.
8. Dry the clean vehicle thoroughly with a good quality chamois.

CARING FOR PAINT cont.

WARNING:

Care should be taken when moving the vehicle after washing, in case water has affected the brakes. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with a clear area ahead, until brake performance returns to normal.

Removing stains, such as grease, oil and tar spots

Just washing your vehicle regularly means that most of the harmful substances deposited on the paint will be removed before they can cause permanent damage. However, some substances are not easy to remove. So if you notice stains on the paint, make sure that you remove them at the earliest possible opportunity.

Grease and oil, and even tar if it is fresh, can be removed from the paint with a little kerosene or turpentine. As a precaution against staining, wash and polish the area as soon as possible after the stain has been removed.

A rubbing or cutting compound can be used after a normal wash. This should never be done on a regular basis because it removes paint.

Warnings:

- Some chemical cleaners used for removing road oils and tars from painted surfaces have been found to be detrimental to automotive paint.
- If petrol is spilt on the paint when refilling, flush off immediately with clean water, as petrol has a tendency to stain or soften new paint finish during the weathering out period, particularly when the vehicle is exposed to high temperatures.
- Petrol must not be used to clean any painted or plastic surfaces.

Ventilation system intake

The intake area between the bonnet and windscreen may collect leaves, which will impair air flow into the vehicle.

It is recommended that this area be cleared of debris whenever you wash your vehicle.

Under vehicle washing

Your vehicle has a factory-applied PVC undercoating in the wheel arches (including longitudinal members) which provides permanent protection and needs no special maintenance. The surfaces of the vehicle underside not covered by PVC are provided with a durable protective wax coating. Once a year, preferably before the start of the cold season the wax coating and PVC coating should be checked and if necessary, restored to perfect condition. Commercial bitumen and rubber materials can damage PVC coating. Have all work on the underbody performed by a Holden Retailer, as it requires knowledge of the specified materials and experience concerning their application.

The underbody should be washed following the end of the cold weather season to remove any dirt adhering to the underbody, since this may also contain salt.

PAINT POLISHING, WHEELS AND TYRES

Polishing

Under normal circumstances the paint doesn't need polishing to retain its shine. A weekly wash is sufficient. However, the use of a Polymer Glaze about every 3 months will reduce the effects of road bloom by removing natural contaminants which can build up on the paint.

Do not apply a polish to your vehicle without first washing it to remove loose grit, surface dirt, dust or grease etcetera.

Tyres

Sponging with cold water is all that is necessary for normal cleaning. Oil and grease should be removed with soap and water or detergent. For tar or other substances, a mild abrasive, such as mechanic's hand soap or kitchen cleaning powder, may be used if necessary. Thoroughly wash the tyres with water to finish. Petrol must not be used for cleaning tyres.

New tyre look can be restored using Holden Tyre and Bumper Shine.

Alloy wheels

To preserve the original appearance of alloy wheels, keep them clean and free from build up of road dirt. Holden Wheel Cleaner can be used for cleaning alloy wheels. Do not use abrasive cleaners on alloy wheels.

EXTERIOR GLASS CLEANING

Glass cleaning – general

Special care should be taken to avoid scratching the glass. If it is cleaned at the same time as the rest of the vehicle, there is a possibility that particles of grit will cause fine scratches. Flush off any mud on the glass when washing the body, but leave the final cleaning and polishing until afterwards. Use Holden Glass Cleaner and wash each section of glass in turn, making sure that the water, its container and the sponge are quite clean and free from grit. Clean old linen cloth is better than new material for polishing glass.

Windscreen

It is important that the windscreen be kept clean so that the wiper blades may be as effective as possible. Old wiper blades can cause windscreen scratching and so should be regularly inspected and replaced.

Abrasive cleaners should never be used to clean glass as they can cause scratches, impairing night vision. After the windscreen has been cleaned with a wet sponge it should be wiped over with a soft, lint free cloth or chamois.

It is recommended that Holden Optikleen be added to the windscreen washer reservoir.

Wiper blades

Oil and road scum thrown up on the windscreen will cause smearing when the wipers are switched on, when the dirt is transferred onto the wiper blades. Many owners, whilst they methodically clean the windscreen glass, omit to clean the wiper blades and consequently smearing of the glass reappears immediately the wiper blades are used. The blades can be cleaned by lifting them off the windscreen and cleaning with Holden Optikleen and a clean cloth.

Do not operate the wiper blades by hand as this can damage the wiper drive mechanism.

If the wiper blades are used to clean dust and dirt from the windscreen in dry conditions always use the washer system first to wet the windscreen. Ensure that the windscreen washer reservoir is not empty.

Should the wiper blades be frozen to the windscreen, they must be lifted off and freed by hand before switching on the wipers.

CLEANING PRODUCTS

PART NUMBER	SIZE	DESCRIPTION	USAGE
92145132	237 ml	Quick and Easy Speed Finish	Seals in a deep, lustrous glazed finish. Long life protection from oxidation, salt and weather damage.
92145418	437 ml	Quick and Easy Speed Finish	Seals in a deep, lustrous glazed finish. Long life protection from oxidation, salt and weather damage.
92145130	237 ml	All Purpose Cleaner	Cleans and deodorises velour, most vinyl upholstery, hood linings, mats and carpets, etc.
92145416	437 ml	All Purpose Cleaner	Cleans and deodorises velour, most vinyl upholstery, hood linings, mats and carpets, etc.
92145133	237 ml	Glass Cleaner	Cleans all glass surfaces.
92145419	437 ml	Glass Cleaner	Cleans all glass surfaces.
92140005	500 ml	Optikleen	Windscreen washer solvent.
92140004	5 ml	Optikleen Sachet	Windscreen washer solvent; 1 sachett per washer bottle refill.
92145129	237 ml	Hi Suds Car Wash	Cleans vehicle exterior.
92145415	437 ml	Hi Suds Car Wash	Cleans vehicle exterior.
92145131	237 ml	Vinyl and Trim Dressing	Seals and protects vinyl upholstery and plastic trim.
92145417	437 ml	Vinyl and Trim Dressing	Seals and protects vinyl upholstery and plastic trim.
92145140	120 ml	Leather Revitaliser	Revitalises the leather upholstery.
92145141	120 ml	Leather Cleaner	Cleans the leather upholstery.
92145142	120 ml	Leather Protector	Protects the leather upholstery.
92145143	1 Kit	Leather Care Kit	Contains leather revitaliser, cleaner and protector.
92145135		Chamois	Cloth for wiping off excess water from the vehicle's exterior after washing and rinsing.
92145134		Handle Grip Sponge	Sponge for washing the vehicle.
92145136		Microfibre Glass Cleaning Cloth	Cloth for cleaning all glass surfaces.
92145137		Microfibre General Purpose Cleaning / Polishing Cloth	Cloth for general purpose cleaning / polishing.

CHAPTER 12

Servicing

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12-2 Service intervals

12-4 Additional service requirements

12-6 Maintenance schedule

12-8 Service times

12-9 Service coupons

SERVICE INTERVALS

When it comes to service, remember that your Holden Retailer has the trained personnel and specialised equipment to correctly service your vehicle. Your Retailer invites you to return for all your service needs both during and after the warranty period.

The safety, economy, emission control, performance and reliability of your vehicle cannot be assured unless regular maintenance is performed, preferably by factory-trained technicians at Holden Retailers.

Therefore, it is in the owner's interest that the following services are performed at the specified distance or months (whichever occurs first).

1 500 km	- 1/12 year (1 month)
15 000 km	- 1 year
30 000 km	- 2 years
45 000 km	- 3 years
60 000 km	- 4 years
75 000 km	- 5 years
90 000 km	- 6 years
105 000 km	- 7 years
120 000 km	- 8 years
135 000 km	- 9 years
150 000 km	- 10 years
165 000 km	- 11 years
180 000 km	- 12 years

SERVICE INTERVALS cont.

The services shown in this schedule between 15 000 km and 180 000 km are to be performed after 180 000 km at the same intervals.

Note: All maintenance services as listed in this Handbook and replacement of service items are the responsibility of the owner and as such are NOT considered, under the provisions of the New Vehicle Warranty to be rectification of defective material and workmanship. Items such as wheel alignment, necessary adjustments to drive belts, transmission, clutch, park brake, etc. or any other items which may require servicing due to fair wear and tear will be carried out at the owner's cost.

Damage caused by failure to have proper maintenance services carried out by an authorised Holden Retailer or authorised Service Outlet, or in accordance with Holden specifications, may void your New Vehicle Warranty. It is strongly recommended that you read the New Vehicle Warranty in Chapter 9 so that you are aware of your Warranty exclusions.

Service coupons are provided further on in this chapter. When each service is performed the coupon is removed so that the following service coupon is readily visible to remind you when the next service is due.

After the service is completed, the owner should check that the service has been validated, by the Retailer stamping and signing the coupon stub. This is important as it will not only assist in the determination of Warranty Claims, but will enhance the value of the vehicle when selling.

ADDITIONAL SERVICE REQUIREMENTS

If your vehicle operates under any of the extreme conditions listed in the following table it is recommended that some items be serviced more frequently than the intervals specified in the Maintenance Plan.

Note that the extra services following need only be used if your vehicle operates continuously under the conditions specified.

If you operate the vehicle under any of these conditions on a one off basis, for example on a holiday trip, then an extra service should be performed for that period only.

As a guide, if you operate continually for a period of one month or 1000 km under any of the extreme conditions, then Holden recommends additional services.

If at any time it is considered that any items should be more frequently serviced due to the type of operation or before a long trip, discuss the situation with the service manager of a Holden Retailer.

Check the engine accessory drive belt @ 15 000 km or 12 months*	-	B	C	D	-	-
Replace the engine accessory drive belt @ 45 000 km or 3 years*	-	B	C	D	-	-
Replace the engine oil and filter @ 5000 km or 4 months*	A	-	C	D	E	F
Replace the spark plugs @ 10 000 km or 8 months*	A	B	C	-	E	F
Check the air filter element @ 2500 km	-	-	C	-	-	-
Replace the air filter element @ 30 000 km or 2 years*	-	-	C	-	-	-
Change the automatic transmission fluid @ 30 000 km or 12 months*	-	B	-	-	E	F
Check the wheel bearings @ 15 000 km or 12 months*	-	B	C	D	-	F
Check the drive axle boots and propeller shaft @15 000 km or 12 months*	-	B	-	D	E	F
Replace the manual transmission oil / transfer oil / differential oil @ 15 000 km or 12 months*, then every 30 000 km or 2 years* after the first replacement	-	B	-	-	E	F

*(whichever comes first)

A = Repeated short trips

B = Driving on rough and / or muddy roads

C= Driving on dusty roads

D= Driving in extremely cold weather and / or salted roads

E= Trailer towing

F= Repeated short trips in extremely cold weather

ADDITIONAL SERVICE REQUIREMENTS cont.

SPECIAL SERVICE FOR ADDITIONAL SERVICE REQUIREMENTS Date ..... km ..... Items performed: .... Servicing Retailer	SPECIAL SERVICE FOR ADDITIONAL SERVICE REQUIREMENTS Date ..... km ..... Items performed: .... Servicing Retailer .....
SPECIAL SERVICE FOR ADDITIONAL SERVICE REQUIREMENTS Date ..... km ..... Items performed: .... Servicing Retailer	SPECIAL SERVICE FOR ADDITIONAL SERVICE REQUIREMENTS Date ..... km ..... Items performed: .... Servicing Retailer .....
SPECIAL SERVICE FOR ADDITIONAL SERVICE REQUIREMENTS Date ..... km ..... Items performed: .... Servicing Retailer	SPECIAL SERVICE FOR ADDITIONAL SERVICE REQUIREMENTS Date ..... km ..... Items performed: .... Servicing Retailer .....

MAINTENANCE SCHEDULE

Use the odometer reading or years, whichever occurs first	x 1000 km	1.5	15	30	45	60	75	90	105	120	135	150	165	180
	or years	1/12	1	2	3	4	5	6	7	8	9	10	11	12
SERVICE ITEMS														
Coolant level and % – check ,		1/12	1	2		4	5		7	8		10	11	
Coolant – replace					3			6			9			12
Engine accessory drive belt – check			1	2	3	4	5		7	8	9	10	11	
Engine accessory drive belt – replace								6						12
Valve clearance – check				2		4		6		8		10		12
Exhaust system (except catalyst) – check				2		4		6		8		10		12
Air cleaner element – check			1	2		4	5		7	8		10	11	
Air cleaner element – replace					3			6			9			12
Spark plugs – replace					3			6			9			12
Fuel filter – replace									7					
Fuel emissions system – replace								6						12
PCV valve – replace								6						12
Engine oil and filter – replace			1	2	3	4	5	6	7	8	9	10	11	12
Engine oil level – check		1/12												
Auto transmission fluid level – check				2		4		6		8		10		12
Auto transmission fluid – replace													11	
Auto transmission fluid hose – inspect						4				8				12
Manual transmission fluid – check			1											
Manual transmission fluid – replace					3			6			9			12
Transfer case oil – check			1		3		5		7		9		11	
Rear differential oil – check					3		5		7		9		11	
Rear differential oil – replace			1											
Leakage – visual check of engine and transmission		1/12	1	2	3	4	5	6	7	8	9	10	11	12
Lights, monitoring, signal equipment, park brake adjustment – check		1/12	1	2	3	4	5	6	7	8	9	10	11	12

MAINTENANCE SCHEDULE cont.

Use the odometer reading or years, whichever occurs first	x 1000 km	1.5	15	30	45	60	75	90	105	120	135	150	165	180
	or years	1/12	1	2	3	4	5	6	7	8	9	10	11	12
SERVICE ITEMS														
Door hinges, door stop, bonnet lock, tailgate hinges – check			1		3		5		7		9		11	
Door hinges, door stop, bonnet lock, tailgate hinges – lubricate				2		4		6		8		10		12
Wiper / washer system – check levels and blade condition		1/12	1	2	3	4	5	6	7	8	9	10	11	12
Headlight adjustment – check			1	2	3	4	5	6	7	8	9	10	11	12
Body / underbody – check corrosion protection		1/12	1	2	3	4	5	6	7	8	9	10	11	12
Brake pad thickness – check			1	2	3	4	5	6	7	8	9	10	11	12
Brake drums and shoes – check				2		4		6		8		10		12
Brake lever and cable – check			1											
Brake pipes, brake pressure hoses, fuel lines, exhaust and suspension – visual check		1/12		2		4		6		8		10		12
Rubber boots – check		1/12		2		4		6		8		10		12
Wheels, nut torque, tyre condition, tyre pressure – check		1/12	1	2	3	4	5	6	7	8	9	10	11	12
Clutch cable free travel – check for minimum clearance (2 mm)		1/12	1	2	3	4	5	6	7	8	9	10	11	12
Brake fluid level – check		1/12	1	2	3	4	5	6	7	8	9	10	11	12
Brake fluid – change		Change every 2 years regardless of km												
Clutch pedal function – check				2		4		6		8		10		12
Remote control battery – replace				2		4		6		8		10		12
Drive axle boots / propeller shafts – check					3			6			9			12
Steering system – check				2		4		6		8		10		12
Road test		1/12	1	2	3	4	5	6	7	8	9	10	11	12
SERVICE LABOUR TIMES			1	1.9	1.5	1.9	1	2.5	1.6	1.9	1.5	1.5	1.6	2.7

SERVICE TIMES

- In addition to the previously listed labour times, brake fluid will be changed every 2 years regardless of kilometres, add 0.2 hours.
- The owner will be charged for all lubricants and materials used plus labour at the times recommended on the coupon.
- The repair or replacement of any part found faulty during a service check and not covered by the Holden warranty will be added to the charges.
- Where any deficiencies are noted, such items should be reported to the owner / operator so that the extra work required can be authorised.
- The use of break-in oil, tune up compounds, friction reducing compounds and other supplemental additives are not recommended. Their use will not only increase operating costs, but may be harmful to your vehicle.

1500km or 1 month INSPECTION

Holden invites the new owner of this vehicle to return to the selling Dealer for a free service inspection at 1500 km.

Owner's Name
Mr.
Mrs. .....
Miss.
Other.....

Address .....

Town .....

State ..... Postcode .....

Reg. no. ..... Engine no .....

ISOVIN ..... Model .....

Odometer reading ..... Date of Acquisition .....

Selling Retailer's Stamp & Signature .....

This vehicle has been thoroughly checked in accordance with the items on the reverse side of this voucher.

This inspection is provided free of charge.

Servicing Retailer's Stamp & Signature

Servicing Retailer .....

Town ..... State .....

Owner's signature .....

1500 km or 1 month Inspection Validation

This vehicle has been thoroughly checked in accordance with the 1500 km/one month inspection.

Retailer .....

Service Manager's signature .....

Date ..... Odometer reading .....

- ❑ COOLANT – check fluid level, check coolant %
- ❑ ENGINE OIL LEVEL– check
- ❑ LEAKAGE – visual check of engine and transmission
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKE PIPES, BRAKE PRESSURE HOSES, FUEL LINES, EXHAUST AND SUSPENSION – visual check
- ❑ RUBBER BOOTS – check
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ ROAD TEST

15 000 km or 1 year

SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1 hour labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

.....

Signature .....

Date .....

15 000 km or 1 year Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

- ❑ COOLANT – check fluid level, check coolant %
- ❑ ENGINE ACCESSORY DRIVE BELT– check
- ❑ AIR CLEANER ELEMENT – check
- ❑ ENGINE OIL AND FILTER – replace
- ❑ MANUAL TRANS FLUID – check
- ❑ TRANSFER CASE OIL – check
- ❑ REAR DIFFERENTIAL OIL – replace
- ❑ LEAKAGE – visual check of engine and transmission
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – check
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ PARK BRAKE – check lever and cable
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID – check fluid level
- ❑ ROAD TEST

30 000 km or 2 years

SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.9 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

.....

Signature .....

Date .....

30 000 km or 2 year Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

- ❑ COOLANT – check level, check coolant %
- ❑ ENGINE ACCESSORY DRIVE BELT – check
- ❑ VALVE CLEARANCE – check
- ❑ EXHAUST SYSTEM – (except catalyst) check
- ❑ AIR CLEANER ELEMENT – check
- ❑ ENGINE OIL AND FILTER – replace
- ❑ AUTO TRANSMISSION – check fluid level
- ❑ LEAKAGE – visual check of engine and transmission
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – lubricate
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ BRAKES – check drums and shoes
- ❑ BRAKE PIPES, BRAKE PRESSURE HOSES, FUEL LINES, EXHAUST AND SUSPENSION – visual check
- ❑ RUBBER BOOTS – check
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ CLUTCH PEDAL FUNCTION – check
- ❑ REMOTE CONTROL BATTERY – replace
- ❑ STEERING SYSTEM – check
- ❑ ROAD TEST

- ❑ BRAKE FLUID – change every 2 years (regardless of km)

45 000 km or 3 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.5 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

.....

Signature .....

Date .....

45 000 km or 3 years Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

- ❑ COOLANT – replace
- ❑ ENGINE ACCESSORY DRIVE BELT – check
- ❑ AIR CLEANER ELEMENT – replace
- ❑ SPARK PLUGS – replace
- ❑ ENGINE OIL AND FILTER – replace
- ❑ MANUAL TRANSMISSION FLUID – replace
- ❑ TRANSFER CASE OIL – check
- ❑ REAR DIFFERANTIAL OIL – check
- ❑ LEAKAGE – visual check of engine and transmisson
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – check
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ DRIVE AXLE BOOTS / PROPELLER SHAFTS – check
- ❑ ROAD TEST

- ❑ BRAKE FLUID – change every 2 years (regardless of km)

60 000 km or 4 years Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
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.....
.....

60 000 km or 4 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.9 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....
.....
.....

Signature .....

Date .....

- ❑ COOLANT – check level, check coolant %
- ❑ ENGINE ACCESSORY DRIVE BELT – check
- ❑ VALVE CLEARANCE – check
- ❑ EXHAUST SYSTEM – (except catalyst) check
- ❑ AIR CLEANER ELEMENT – check
- ❑ ENGINE OIL AND FILTER – replace
- ❑ AUTO TRANSMISSION – check fluid level
- ❑ AUTO TRANSMISSION fluid hose – inspect
- ❑ LEAKAGE – visual check of engine and trans.
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – lubricate
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ BRAKES – check drums and shoes
- ❑ BRAKE PIPES, BRAKE PRESSURE HOSES, FUEL LINES, EXHAUST AND SUSPENSION – visual check
- ❑ RUBBER BOOTS – check
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ CLUTCH PEDAL FUNCTION – check
- ❑ REMOTE CONTROL BATTERY – replace
- ❑ STEERING SYSTEM – check
- ❑ ROAD TEST

- ❑ BRAKE FLUID – change every 2 years (regardless of km)

75 000 km or 5 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1 hour labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

.....

Signature .....

Date .....

75 000 km or 5 years Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
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- ❑ COOLANT – check level, check coolant %
- ❑ ENGINE ACCESSORY DRIVE BELT – check
- ❑ AIR CLEANER ELEMENT – check
- ❑ ENGINE OIL AND FILTER – replace
- ❑ TRANSFER CASE OIL – check
- ❑ REAR DIFFERENTIAL OIL – check
- ❑ LEAKAGE – visual check of engine and trans.
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – check
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ ROAD TEST

- ❑ BRAKE FLUID – change every 2 years (regardless of km)

90 000 km or 6 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 2.5 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

.....

Signature .....

Date .....

90 000 km or 6 years Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
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- ❑ COOLANT – replace
- ❑ ENGINE ACCESSORY DRIVE BELT – replace
- ❑ VALVE CLEARANCE – check
- ❑ EXHAUST SYSTEM – (except catalyst) check
- ❑ AIR CLEANER ELEMENT – replace
- ❑ SPARK PLUGS – replace
- ❑ FUEL EMISSION SYSTEM – check
- ❑ PCV VALVE – replace
- ❑ ENGINE OIL AND FILTER – replace
- ❑ AUTO TRANSMISSION – check fluid level
- ❑ MANUAL TRANSMISSION FLUID – replace
- ❑ LEAKAGE – visual check of engine and trans.
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – lubricate
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ BRAKES – check drums and shoes
- ❑ BRAKE PIPES, BRAKE PRESSURE HOSES, FUEL LINES, EXHAUST AND SUSPENSION – visual check
- ❑ RUBBER BOOTS – check
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ CLUTCH PEDAL FUNCTION – check
- ❑ REMOTE CONTROL BATTERY – replace
- ❑ DRIVE AXLE BOOTS / PROPELLER SHAFTS – check
- ❑ STEERING SYSTEM – check
- ❑ ROAD TEST

- ❑ BRAKE FLUID – change every 2 years (regardless of km)

105 000 km or 7 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.6 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

.....

Signature .....

Date .....

105 000 km or 7 years Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
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- ❑ COOLANT – check level, check coolant %
- ❑ ENGINE ACCESSORY DRIVE BELT – check
- ❑ AIR CLEANER ELEMENT – check
- ❑ FUEL FILTER – replace
- ❑ ENGINE OIL AND FILTER – replace
- ❑ TRANSFER CASE OIL – check
- ❑ REAR DIFFERENTIAL OIL – check
- ❑ LEAKAGE – visual check of engine and trans.
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – check
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ ROAD TEST

- ❑ BRAKE FLUID – change every 2 years (regardless of km)

120 000 km or 8 years Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
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.....
.....
.....

120 000 km or 8 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.9 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....
.....
.....

Signature .....

Date .....

- ❑ COOLANT – check level, check coolant %
- ❑ ENGINE ACCESSORY DRIVE BELT – check
- ❑ VALVE CLEARANCE – check
- ❑ EXHAUST SYSTEM – (except catalyst) check
- ❑ AIR CLEANER ELEMENT – check
- ❑ ENGINE OIL AND FILTER – replace
- ❑ AUTO TRANSMISSION – check fluid level
- ❑ AUTO TRANSMISSION fluid hose – inspect
- ❑ LEAKAGE – visual check of engine and trans.
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – lubricate
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ BRAKES – check drums and shoes
- ❑ BRAKE PIPES, BRAKE PRESSURE HOSES, FUEL LINES, EXHAUST AND SUSPENSION – visual check
- ❑ RUBBER BOOTS – check
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ CLUTCH PEDAL FUNCTION – check
- ❑ REMOTE CONTROL BATTERY – replace
- ❑ STEERING SYSTEM – check
- ❑ ROAD TEST

- ❑ BRAKE FLUID – change every 2 years (regardless of km)

135 000 km or 9 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.5 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

.....

Signature .....

Date .....

135 000 km or 9 years Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

- ❑ COOLANT – replace
- ❑ ENGINE ACCESSORY DRIVE BELT – check
- ❑ AIR CLEANER ELEMENT – replace
- ❑ SPARK PLUGS – replace
- ❑ ENGINE OIL AND FILTER – replace
- ❑ MANUAL TRANSMISSION FLUID – replace
- ❑ TRANSFER CASE OIL – check
- ❑ REAR DIFFERENTIAL OIL – check
- ❑ LEAKAGE – visual check of engine and trans.
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – check
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ DRIVE AXLE BOOTS / PROPELLER SHAFTS – check
- ❑ ROAD TEST

- ❑ BRAKE FLUID – change every 2 years (regardless of km)

150 000 km or 10 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.5 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

.....

Signature .....

Date .....

150 000 km or 10 years Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

- ❑ COOLANT – check level, check coolant %
- ❑ ENGINE ACCESSORY DRIVE BELT – check
- ❑ VALVE CLEARANCE – check
- ❑ EXHAUST SYSTEM – (except catalyst) check
- ❑ AIR CLEANER ELEMENT – check
- ❑ ENGINE OIL AND FILTER – replace
- ❑ AUTO TRANSMISSION – check fluid level
- ❑ LEAKAGE – visual check of engine and trans.
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – lubricate
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ BRAKES – check drums and shoes
- ❑ BRAKE PIPES, BRAKE PRESSURE HOSES, FUEL LINES, EXHAUST AND SUSPENSION – visual check
- ❑ RUBBER BOOTS – check
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ CLUTCH PEDAL FUNCTION – check
- ❑ REMOTE CONTROL BATTERY – replace
- ❑ STEERING SYSTEM – check
- ❑ ROAD TEST

- ❑ BRAKE FLUID – change every 2 years (regardless of km)

165 000 km or 11 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.6 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

.....

.....

.....

Signature .....

Date .....

165 000 km or 11 years Service Validation

Servicing Retailer .....
Brake fluid changed: YES / NO
Date of Service .....
Odometer .....
Signed .....

Additional services performed: .....
.....
.....
.....
.....

- ❑ COOLANT – replace
- ❑ ENGINE ACCESSORY DRIVE BELT – check
- ❑ AIR CLEANER ELEMENT – check
- ❑ ENGINE OIL AND FILTER – replace
- ❑ AUTO TRANSMISSION – fluid replace
- ❑ TRANSFER CASE OIL – check
- ❑ REAR DIFFERENTIAL OIL – check
- ❑ LEAKAGE – visual check of engine and trans.
- ❑ LIGHTS, MONITORING, SIGNAL EQUIPMENT AND PARK BRAKE ADJUSTMENT – check
- ❑ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES – check
- ❑ WIPER / WASHER – check fluid level and blade condition
- ❑ HEADLIGHT ADJUSTMENT – check
- ❑ BODY / UNDERBODY – check corrosion protection
- ❑ BRAKES – check pad thickness
- ❑ WHEELS – check wheel nut torque, tyre condition and tyre pressure
- ❑ CLUTCH CABLE FREE TRAVEL – check for minimum clearance (2 mm)
- ❑ BRAKE FLUID LEVEL – check
- ❑ ROAD TEST

- ❑ BRAKE FLUID – change every 2 years (regardless of km)

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